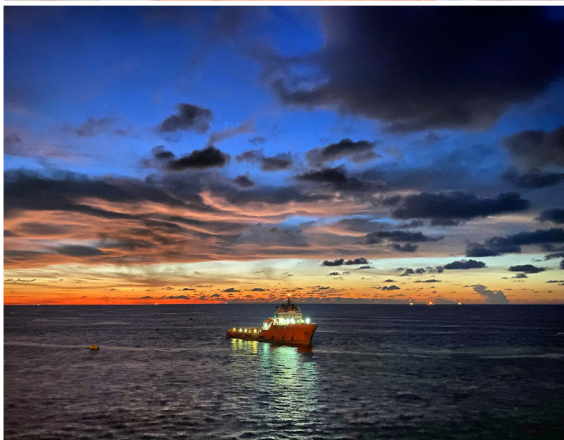




ISA TECHNICAL STUDY NO. 26



Competencies of the International Seabed Authority and the International Labour Organization in the context of activities in the Area



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August 2021

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ABBREVIATIONS

Area (the)	The seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction
CEACR	Committee of Experts on the Application of Conventions and Recommendations of ILO
CBA	collective bargaining agreement
GFA	global framework agreement
GT	gross tonnage
ILC	International Labour Conference
ILO	International Labour Organization
IMO	International Maritime Organization
ISA	International Seabed Authority
ISM Code	International Management Code for the Safe Operation of Ships and for Pollution Prevention
ISO	International Organization for Standardization
LL Convention	International Convention on Load Lines
MLC, 2006	Maritime Labour Convention, 2006
MODU	mobile offshore drilling unit
OSH	occupational safety and health
PSC	Port State Control
PSC MOU	Port State Control Memorandum of Understanding
PTMC	Preparatory Technical Maritime Conference
ROV	remotely operated vehicle
SOLAS	International Convention for the Safety of Life at Sea
SPS	special purpose ship
STC	Special Tripartite Committee
STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers
UNCLOS	United Nations Convention on the Law of the Sea
SUA	Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation

FOREWORD

I am pleased to introduce our Technical Study 26 on the competencies of the International Seabed Authority and the International Labour Organization in the context of activities in the Area. This new publication follows the issuance in 2021 of Technical Study 25 on the Competencies of the International Seabed Authority and International Maritime Organization in the context of activities in the Area. Together, these two studies provide a comprehensive foundation for the progress made in the development of rules, regulations and procedures covering all phases of deep-sea mining activities identified as one of the Strategic Direction 2 (Strengthen the regulatory framework for activities in the Area) high-level actions (2.1.1) set out by the International Seabed Authority (ISA) Strategic Plan and High-Level Action Plan of the Authority for 2019-2023.

United Nations Convention on the Law of the Sea (UNCLOS), Article 146 requires that ISA develops and implements the necessary measures to ensure the effective protection of human life with respect to activities in the Area. This requirement is reflected in Section 3 of the Draft regulations on exploitation of mineral resources in the Area (Draft Regulations) which contains several provisions concerning applicable safety, labour and health standards.

This new study examines the International Labour Organization's Maritime Labour Convention (as amended in 2006) and instruments concerning safety, labour and health standards of ISA to identify potentially "applicable international rules and standards established by competent international organisations" (Draft Regulations, Regulation 30(2)) concerning the safety of life at sea with respect to activities in the Area.

This leads to considering all relevant existing international rules in order to identify potential gaps in coverage, in either *ratione materiae* or *ratione personae*, that will need to be addressed to ensure the protection of human life in relation to activities in the Area in the future. This is particularly important in light of the current development of new technologies that may introduce new workplace hazards and risks that may have not yet been addressed by the existing international rules and standards. The study also highlights potential legal issues pertaining to the possible use of certain installations in the Area for future commercial operations, such as mobile offshore drilling units. While there are no present indications that these will be used by any contractor, the applicability of the legal instruments considered in this study may need to be revisited when more is known about the operational tools and equipment to be used in the commercial production of minerals in the Area.

I am grateful to colleagues of the Office of Legal Affairs as well as the Communications Unit for their work in the preparation of this study and wish to acknowledge the contribution as lead author of Dr. Moira McConnell, Professor Emerita at the Schulich School of Law in Dalhousie University in Halifax, Canada.



Michael W. Lodge
Secretary-General
International Seabed Authority

EXECUTIVE SUMMARY

This study was commissioned by the International Seabed Authority (ISA) to review the potential interface between its competencies and those of the International Labour Organization (ILO) with respect to activities in the Area. Pursuant to Article 146 of the United Nations Convention on the Law of the Sea (UNCLOS), necessary measures need to be taken to ensure the effective protection of human life with respect to activities in the Area. ISA is, therefore, mandated to adopt appropriate rules, regulations and procedures to supplement existing international law as embodied in relevant treaties.

This study is a follow-up to the Technical Study on the *Competencies of the International Seabed Authority and the International Maritime Organization in the context of activities in the Area* (ISA Technical Study 25), which examined similar questions relating to the International Maritime Organization (IMO) and the application of IMO instruments. This study pointed to the complementary competency of ILO under Article 146 of UNCLOS in connection with occupational safety and health (OSH) for personnel involved in activities in the Area.

The present study takes into account the advisory opinion of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea on *Responsibilities and Obligations of States with respect to Activities in the Area* (Seabed Advisory Opinion) regarding the scope of the phrase

“activities in the Area”. It also considers the Draft Regulations on Exploitation of Mineral Resources in the Area of ISA, especially draft Regulation 30, which is intended to implement Article 146 of UNCLOS.

ILO and IMO have complementary roles under Article 94 of UNCLOS in connection with the duties of flag States. It is also clear that the concept of “safety of life at sea” in relation to the regulation of ships is inseparable from questions of safety and health, including OSH, for seafarers. Further, ILO, like IMO, has a complementary interface with ISA in the context of Article 146 of UNCLOS. As of today, no cooperation agreement exists between ISA and ILO, and it is suggested that consideration be given to formalizing such cooperation in the years ahead.

This study is specifically concerned with an examination of ILO’s Maritime Labour Convention, 2006, as amended (MLC, 2006), and other ILO instruments relating to OSH to evaluate their potential application as “relevant treaties” to the safety and health of personnel who will be engaged in activities in the Area. It provides a detailed examination of the MLC, 2006, which establishes minimum international standards for nearly every aspect of the working and living conditions of seafarers, and which has been ratified by most States with maritime interests. It notes that the MLC, 2006 contains a number of provisions, especially in relation to safety, training, health and OSH to ensure harmonization between the MLC, 2006 and provisions

adopted by IMO concerning the safety of ships. This study explains that the MLC, 2006 is intended to apply inclusively to all personnel working on board a ship as “seafarers”. However, it also has provisions and guidance to address cases of doubt as to whether all personnel on a ship should be considered as seafarers under the MLC, 2006. The MLC, 2006 applies to a wide range of ships including those in domestic (cabotage) voyages, and has very few exclusions. Importantly, the MLC, 2006 was designed to operate within the international maritime regulatory regime, including requirements for ship inspection, certification, the use of recognized organizations and Port State Control (PSC). This study concludes that the MLC, 2006 can be considered a relevant treaty under Article 146 of UNCLOS and, assuming flag State ratification, would apply to personnel on ships involved in activities in the Area as well as ships supporting those activities.

An important objective of the current study was to identify any gaps in the relevant treaties in providing protection for safety and health, as required under Article 146 of UNCLOS. Although the technology that will be used to carry out exploitation in the Area is still unknown, it might involve the use of mobile offshore drilling units (MODUs) and similar platforms or installations. Taking note of the fact that there are variations in offshore continental shelf resource exploitation, in the treatment of these platforms as ships

under the MLC, 2006 by flag States, it is suggested that it would be useful for this matter to be clarified in consultation with ILO and IMO.

Other ILO OSH instruments may also be applicable, once ratified by the State concerned. This study further notes that the IMO instruments providing for aspects of health and OSH for some categories of seafarers would apply to MODUs and similar units. It concludes that ISA’s Draft Regulations on Exploitation of Mineral Resources in the Area appear to appropriately address the situation and suggests possible next steps for ISA.

In conclusion, as technology develops, there are tasks and equipment, and related workplace hazards and risks as well as training needs, that have not yet been addressed by international regulations or treaties. However, adopting a contemporary OSH management approach means that ISA contractors would be required to update their plans and practices in light of these technological advancements. It points to the fact that there are already several industry standards available for some of these technologies. In the context of any further development by ISA of rules, regulations and procedures aimed to address these technological developments, it would be useful to consult with ILO and IMO, and other non-governmental standard-setting bodies and relevant organizations.

1. INTRODUCTION

1. This study was commissioned by ISA to review the interface between its competencies and those of ILO with respect to activities on the seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction (the Area), as set out in Part XI of the UNCLOS¹ and the Agreement relating to the Implementation of Part XI of UNCLOS (the 1994 Agreement).²

2. This study is a legal desk study primarily based on the provisions of international instruments, academic and other studies, reports and information from the websites of relevant organizations. Although not intended as an interpretation or legal opinion *per se*, the analysis and comments contained herein reflect accepted approaches to the interpretation of international instruments as reflected in the Vienna Convention on the Law of Treaties.³

3. ISA was established under UNCLOS as:

“... the organization through which States Parties shall, [...] organize and control activities in the Area [...] [t]he powers and functions of [ISA] shall be those expressly conferred on it by this Convention [...] and] shall have such incidental powers consistent with this Convention, as are implicit in and necessary for the exercise of those powers and functions with respect to activities in the Area.”⁴

4. Pursuant to Article 156 of UNCLOS, all States parties are *ipso facto* members of ISA. In the context of ISA’s regulatory responsibility, this technical study is concerned with the interface between the competencies and/or mandates of ILO and ISA under UNCLOS. Specifically, it is concerned with the interface between the international instruments adopted by ILO and the regulatory responsibility of ISA pursuant to Article 146 of UNCLOS, which provides that:

¹ UNCLOS, adopted 10 December 1982 (entered into force 16 November 1994) 1833 UNTS 3. Available at: https://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm

² General Assembly resolution 48/263 and the Agreement relating to the implementation of Part XI of the UNCLOS of 10 December 1982, adopted 28 July 1994 (entered into force 16 November 1994) 1836 UNTS. Available at: <https://treaties.un.org/doc/Publication/UNTS/Volume%201836/volume-1836-I-31364-English.pdf>

³ Vienna Convention on the Law of Treaties (1969) 1155 UNTS 331, Articles 31–33. Available at: <https://treaties.un.org/doc/publication/unts/volume%201155/volume-1155-i-18232-english.pdf>

⁴ UNCLOS, Articles 156 (Establishment of [ISA]) and 157 (Nature and fundamental principles of [ISA]).

“With respect to activities in the Area, necessary measures shall be taken to ensure effective protection of human life. To this end [ISA] shall adopt appropriate rules, regulations and procedures to supplement existing international law as embodied in relevant treaties.”

- Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area⁸
- Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area⁹
- Regulations on Prospecting and Exploration for Cobalt-Rich Ferromanganese Crusts.¹⁰

5. As explained in a recent ISA report:⁵

Article 146 of the Convention provides [ISA] with a supplementary power to regulate the protection of human life as regards safety matters. Other organizations have adopted regulations relating to maritime safety and seafarer training (IMO) and occupational health and safety for seafarers ([ILO]).

6. ISA has wide-ranging powers and regulatory responsibilities for activities in the Area, including the regulation of exploration and exploitation of the resources of the Area.⁶ As part of the implementation of its regulatory responsibilities, ISA is developing a “Mining Code” to regulate activities in the Area⁷ and has already adopted three regulations, namely:

7. ISA is currently developing Draft Regulations on Exploitation of Mineral Resources in the Area,¹¹ which include draft Regulation 30 entitled “Safety, labour and health standards”, as well as requirements in draft Regulation 7 regarding a “Health and Safety Plan and a Maritime Security Plan”. The Draft Regulations on Exploitation of Mineral Resources in the Area are a key aspect of the legal context for this study.

8. The interpretation of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea in its advisory opinion on Responsibilities and Obligations of States Sponsoring Persons and Entities with respect to Activities in the Area (Seabed Advisory Opinion)¹² regarding the scope of the term “activities in the Area” is also an essential aspect of the context for this study.

⁵ Note by the Secretariat, Competencies of the International Seabed Authority and International Maritime Organization in the Context of Activities in the Area, 24 June 2019, ISA Doc. No. ISBA/25/LTC/CRP.6, para. 4.

⁶ UNCLOS, Article 153.

⁷ See ISA website: <https://isa.org.jm/mining-code>

⁸ ISBA/19/C/17, adopted in 2010 and amended in 2013. Available at <https://www.isa.org.jm/documents/isba19c17>

⁹ ISBA/16/A/12/Rev.1, adopted in 2010. Available at: https://isa.org.jm/files/files/documents/isba-16a-12rev1_2_0.pdf

¹⁰ ISBA/18/A/11, adopted in 2012. Available at: <https://www.isa.org.jm/documents/isba18a11>

¹¹ ISBA/25/C/WP.1, 22 March 2019. Available at: https://isa.org.jm/files/files/documents/isba_25_c_wp1-e_0.pdf

¹² International Tribunal for the Law of the Sea, *Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area (Request for advisory opinion submitted to the Seabed Disputes Chamber)*, Advisory Opinion of 1 February 2011. See, in particular, paras. 82–98. Available at: https://www.itlos.org/fileadmin/itlos/documents/cases/case_no_17/17_adv_op_010211_en.pdf

9. ISA commissioned the study on the competencies of ISA and IMO in the context of activities in the Area.¹³ In addition to examining the interface between the competencies of the respective organizations in the context of UNCLOS, ISA Technical Study 25 provides a thorough examination of international legal questions regarding the interaction between international instruments in cases of potentially overlapping responsibilities or competencies of IMO and ISA in connection with activities in the Area. ISA Technical Study 25 concludes, *inter alia*, that:

“[a]lthough the work of ILO was outside the remit of this report, a study of the extent to which the range of workers engaged in seabed mining will be captured by the MLC would likely assist ISA in developing expectations for the Draft Exploitation Regulations Annex VI Health, and Safety and Security Plan.”¹⁴

10. This study explicitly builds upon ISA Technical Study 25, as multiple elements highlighted in it are equally applicable to an analysis of the interface of the competencies between ILO and ISA.

11. ILO, established in 1919, was given the mandate to achieve “social justice” against the background of adequate labour conditions.¹⁵ One of the most important activities of ILO is the development and adoption of international labour standards¹⁶ and other instruments covering all aspects and sectors of work. Since 1920, ILO has adopted more than 40 conventions (including a protocol) and related recommendations dealing with seafarers’ working and living conditions.¹⁷ In 2006, almost all of these maritime labour instruments were updated and consolidated in the MLC, 2006.¹⁸ As of December 2019, the MLC, 2006 has been ratified by 96 States, representing 91 per cent of the world’s gross tonnage (GT) of ships.¹⁹ The MLC, 2006 establishes minimum international labour standards for almost every issue relating to working and living on board a ship, including requirements for protecting seafarers’ safety and health. ILO has also adopted important international guidance on many matters to assist in national legal and industry implementation of the MLC, 2006. Importantly, the convention is intended to apply to “seafarers”, a term which is defined inclusively to mean all persons working in any capacity on board a ship. The MLC,

¹³ ISA, *Competencies of [ISA] and [IMO] in the context of activities in the Area*, Technical Study 25, 2021. Available at: <https://isa.org.jm/files/files/documents/Technical%20Study%2025.pdf>

¹⁴ *Ibid.*, p. 54.

¹⁵ *ILO Constitution*. Available at: https://www.ilo.org/dyn/normlex/en/f?p=1000:62:0::NO:62:P62_LIST_ENTRIE_ID:2453907:NO

¹⁶ Over 190 Conventions as of December 2019. The term “international labour standards” is understood to refer to conventions and protocols to these conventions, as well as recommendations adopted by ILO. Although it is a simplification, ILO conventions are described as mandatory and are considered binding on a State when ratified and entered into force, while recommendations, as the name suggests, are not subject to ratification and are not legally binding.

¹⁷ This number refers to instruments for seafarers/shipping. The maritime sector of ILO also works with and has instruments for work in fishing, port workers and inland navigation workers. See also: <https://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/seafarers/lang--en/index.htm>

¹⁸ 37 conventions/protocols and associated recommendations. Four conventions were not included: Seafarers’ Identity Documents Convention, 1958 (No. 108); its revising convention, Seafarers’ Identity Documents Convention (Revised), 2003 (No. 185); Minimum Age (Trimmers and Stockers) Convention, 1921 (No. 15); and Seafarers’ Pension Convention, 1946 (No. 71). MLC, 2006 available at: https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/normativeinstrument/wcms_763684.pdf

Since its entry into force in 2013, the MLC, 2006 has been amended several times and is now the “MLC, 2006, as amended”.

¹⁹ For a list of ratifications and other information, see ILO’s dedicated MLC, 2006 website, <https://www.ilo.org/global/standards/maritime-labour-convention/lang--en/index.htm>

2006 applies to a wider range of ships than the IMO instruments, including most ships operating on domestic or national voyages (cabotage). It also includes requirements for ship inspection and certification, as well as the PSC, in line with the wider maritime and IMO regulatory system. In addition, several provisions of the MLC, 2006, particularly those relating to health, safety and training, were harmonized with relevant IMO instruments.

12. As indicated above, in addition to the maritime labour conventions which apply to seafarers, ILO has also adopted over 150 international labour conventions, related recommendations and international guidance on specific issues, including OSH, that apply to most sectors of work. Depending on national ratification and the details of legal implementation,²⁰ these instruments are also potentially

applicable to personnel involved in activities in the Area, if not already protected under the MLC, 2006.

13. This study is divided into three articles. The first part sets out legal questions arising out of UNCLOS and the scope of this study. The second part is an assessment of the potentially applicable ILO instruments with a focus on the MLC, 2006. The third part sets out findings and identifies issues, such as possible regulatory gaps and matters for further study. It also suggests potential next steps for ISA.

14. The study includes two appendices. Appendix 1 is an ILO resolution adopted in 2006 regarding information on occupational groups. Appendix 2 contains a matrix regarding UNCLOS and the interface of competencies of ISA and ILO with respect to activities in the Area.



Photo: Getty Images

²⁰ Application in any given case depends on the provisions for the implementation of domestic legislation. See, e.g., *Business and Human Rights: Enhancing Accountability and Access to Remedy*, OHCHR Accountability and Remedy Project I Working Paper #1, "Roles and Responsibilities of Interested States"; *Cross-border regulation and cooperation in relation to business and human rights issues: a survey of key provisions and state practice under selected ILO instruments*, OHCHR Working Paper #1, April 2015.

2. LEGAL QUESTIONS ARISING OUT OF UNCLOS

2.1. “Relevant treaties” and the competence of organizations

15. As noted above, the focus of this study is the interface of competencies of ISA and ILO under Article 146 of UNCLOS, and, specifically, whether there are relevant treaties of ILO related to the effective protection of human life that could apply to activities in the Area.

16. The question of which international instruments or organizations are referred to in UNCLOS requires careful consideration. As explained in ISA Technical Study 25,²¹ apart from references to the bodies it establishes (such as ISA), UNCLOS employs broad, indirect terms such as “competent international organizations”, “relevant treaties”, “applicable international instruments” and “generally accepted international rules or standards” (GAIRS) in referencing international organizations and the norms developed by other

organizations. It is sometimes unclear which organizations, treaties, rules or regulations are referenced. In many cases, there may be parallel or complementary responsibilities, albeit different mandates, and the question of which is the “lead” competent organization, or which treaty or rules are being referenced, has to take into account the specific wording used in UNCLOS. These more general international law questions are discussed in ISA Technical Study 25.²²

17. Although ILO and IMO are not explicitly mentioned, they have complementary roles under Article 94 of UNCLOS in connection with the duties of flag States on the high seas.²³ Seafarers and questions of ship safety and safety of life at sea are issues of concern to both IMO and ILO, albeit with a difference in focus. It seems clear that ILO is also a competent international organization with respect to references found in Article 94 to “labour conditions” and “social matters” for seafarers.²⁴ In the

²¹ *Supra* note 13, sections 2.2 and 2.3, pp. 12–14.

²² *Ibid.*

²³ UNCLOS, Article 94 (emphasis added) provides, *inter alia*, that:

“1. Every State shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag.

2. In particular every State shall:

...

(b) assume jurisdiction under its internal law over each ship flying its flag and its master, officers and crew in respect of administrative, technical and social matters concerning the ship.

3. Every State shall take such measures for ships flying its flag as are necessary to ensure safety at sea with regard, *inter alia*, to:

...

(b) the manning of ships, labour conditions and the training of crews, taking into account the applicable international instruments;...”

²⁴ While the reference in Article 94 to “social matters” may be less clear, based on the predecessor 1958 Convention on the High Seas, the reference to “labour conditions” and “applicable international instruments”

context of flag State duties, concepts such as “safety at sea” or “manning” in relation to the regulation of ships are inseparable from questions related to labour conditions for seafarers (for example, hours of work or rest, minimum age, medical examinations, manning levels, training, medical care on ships and OSH).²⁵ There is a long history of cooperation²⁶ between the two organizations to provide, as much as possible, consistency between ILO maritime labour instruments and the IMO instruments. This cooperation signals the importance placed by States on ensuring a seamless regime between ILO instruments to protect workers (seafarers), and IMO instruments regarding ship safety, security and marine environmental protection.

18. The description of the complementary roles of ILO and IMO under Article 94 of UNCLOS is equally applicable to their respective interfaces with ISA in connection with activities in the Area and the effective protection of human life under Article 146. As also discussed in ISA Technical Study 25,²⁷ IMO and ILO both have instruments with provisions addressing the safety of life at sea and seafarers’ safety and health, including OSH. Thus, the “existing international law as embodied in relevant

treaties” referred to in Article 146 can be understood as the treaties that ILO and IMO have adopted. However, assessing the relevance of a particular treaty under Article 146 also requires consideration of questions, as discussed below, regarding the scope of “activities in the Area” and the “effective protection of human life”. In addition, academic commentary²⁸ on the *travaux préparatoires* and Article 146 does not address the question of what was intended²⁹ by “existing international law”, and only indirectly indicates what is meant by “relevant treaties”. It is possible that similar criteria as that employed in assessing, for example, generally accepted international rules or standards under other parts of UNCLOS could be considered an aspect of assessing relevance. Assuming, based on its subject matter and the scope of its provisions, that a particular international legal instrument could be relevant, questions of the level of ratification by the States concerned would also be factors to consider in assessing whether it is a “relevant treaty” under Article 146 of UNCLOS.

19. As proposed in ISA Technical Study 25,³⁰ this study is primarily concerned with the potential relevance of the

appears to refer to ILO’s international labour instruments. See: Convention on the High Seas, Article 10, “1. Every State shall take such measures for ships under its flag as are necessary to ensure safety at sea with regard *inter alia* to (b) the manning of ships and labour conditions for crews **taking into account the applicable international labour instruments**” (emphasis added). Available at: <https://treaties.un.org/doc/Publication/UNTS/Volume%20450/volume-450-I-6465-English.pdf>

²⁵ In 1978, IMO also began to regulate safe manning levels and the training of some seafarers under the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 as amended (STCW). It appears that the instruments of both organizations are referenced in Article 94 (3)(b). ILO MLC, 2006 also has provisions on manning levels and training.

²⁶ See ILO website, “Joint IMO/ILO Activities on seafarers”: https://www.ilo.org/global/standards/maritime-labour-convention/text/WCMS_162318/lang-en/index.htm

²⁷ *Supra* note 13, e.g. p. 26, 55, 59.

²⁸ E.g. A. Proelss, A. Magio, E. Blitza and O. Daum, eds., *United Nations Convention on the Law of the Seas: a commentary*, (Munich, Oxford and Baden-Baden: C.H. Beck/Hart/Nomos, 2017), p. 1029-1035.

²⁹ The question of the meaning of “existing” in this context does not seem to have been the subject of much, if any, comment, although a note in the early *travaux préparatoires* for UNCLOS seems to refer to treaties in force at the entry into force of UNCLOS. However, there appears to be no suggestion in the various ISA studies, including ISA Technical Study 25, that this is an issue. There is an assumption that instruments adopted after the entry into force of UNCLOS can be considered as applicable. The academic commentary, *ibid*, refers to the “rules already in place” and notes the potential application of the MLC, 2006 and the various IMO conventions under Article 146, presumably envisaging that an instrument adopted in 2006 could be considered “existing”, albeit adopted after 1982 and after the entry into force of UNCLOS in 1994.

³⁰ *Supra* note 13.

provisions of MLC, 2006 to help ensure the safety and health, including OSH, of personnel engaged in activities in the Area. The study considers the following key normative ILO OSH instruments and related guidance should a flag State not consider the MLC, 2006 provisions to be applicable:

- Promotional Framework for OSH Convention, 2006 (No. 187)³¹
- OSH Convention, 1981 (No. 155)³² and its Protocol of 2002
- Occupational Health Services Convention, 1985 (No. 161).³³

20. Although the above-mentioned instruments currently do not specifically address activities in the Area, they are considered to be applicable in industries that pose similar issues for workers, for example, the offshore oil and gas exploitation industries. It should be further noted that the MLC, 2006 provisions on OSH and related guidelines on implementation are based on ILO's key normative OSH instruments and other guidance as well as on predecessor maritime labour instruments relating to OSH and other relevant international guidance on implementation.

21. With respect to the terminology used in this study, it should be noted that UNCLOS

does not employ the term "seafarer" but rather "crew", "master" and "officers" and varies in its use of the terms "vessel" and "ship", as well as other terms such as "installations", "structures", or "devices". These terms are not defined in UNCLOS.³⁴ The MLC, 2006 uses the terms "seafarers" and "ships" with definitions and scope provisions relating to both. This study uses the term "ship" to also mean "vessel", and the term "seafarer" to include a ship's crew, master and officers, and other personnel working on board the ship.

2.2. "Activities in the Area"

22. The phrase "activities in the Area" is used in many provisions in UNCLOS. "Activities in the Area" is defined in Article 1, paragraph 1 (3) as: "...all activities of exploration for, and exploitation of, the resources of the Area." The term "resources" is defined in Part XI, Article 133, paragraphs (a) and (b) as: (a) "all solid, liquid or gaseous mineral resource *in situ* in the Area at or beneath the seabed, including polymetallic nodules and (b) resources, when recovered from the Area, are referred to as 'minerals'". As previously mentioned, in 2011, the meaning and scope of the phrase "activities in the Area" were clarified in the Seabed Advisory Opinion. Although the Seabed Advisory Opinion discussed the phrase in connection with specific

³¹ As of June 2021, ratified by 52 ILO member States. See: https://www.ilo.org/dyn/normlex/en/f?p=1000:11300:0:0::NO:11300:P11300_INSTRUMENT_ID:312332

³² As of June 2021, ratified by 72 ILO member States. See: https://www.ilo.org/dyn/normlex/en/f?p=1000:11300:0:0::NO:11300:P11300_INSTRUMENT_ID:312300. However, it is noted that the OSH Convention, 1981 states in Article 1 that:

"2. A Member ratifying this Convention may, after consultation at the earliest possible stage with the representative organisations of employers and workers concerned, exclude from its application, in part or in whole, particular branches of economic activity, such as maritime shipping or fishing, in respect of which special problems of a substantial nature arise."

³³ As of June 2021, ratified by 35 ILO member States. See: https://www.ilo.org/dyn/normlex/en/f?p=1000:11300:0:0::NO:11300:P11300_INSTRUMENT_ID:312306

³⁴ With regard to "installations" and "structures", coastal State jurisdiction on many matters is provided for "installations" and "structures" as well as "artificial islands" in the exclusive economic zone in Article 60 of UNCLOS. Article 147 of UNCLOS, in relation to the Area, also speaks of "installations" but does not define them except to state that they do not possess the status of islands and have no territorial sea. The schedule "Use of terms and scope" to the ISA's Draft Regulations on Exploitation of Mineral Resources in the Area states that: "installations" include, insofar as they are used for carrying out activities in the Area, structures and platforms, whether stationary or mobile.

questions and mainly in connection with the UNCLOS provisions on the protection of the marine environment, it is understood that it would have the same meaning in other provisions, including Article 146.³⁵

23. The importance of the meaning and scope of the phrase “activities in the Area”, for the question of the interface of ISA with the mandate and regulatory activities of other organizations, was explained in ISA Technical Study 25, which points out that “... the term serves to inform the spatial and functional scope of ISA’s mandate [and]... serves to identify the subject matter of seabed mining regulations.”³⁶

24. The Seabed Advisory Opinion covers many issues beyond the scope of this study. Relevant to exploitation in the Area, the following extracts are, however, important (emphasis added):

“87. [...] these lists may be seen as an indication of what the Convention considers as included in the notion of “activities in the Area”. These activities include drilling, dredging, coring, and excavation; disposal, dumping and discharge into the marine environment of sediment, wastes or other effluents; and construction and operation or maintenance of installations, pipelines and other devices related to such activities. [...]

94. In light of the above, the expression “activities in the Area”, in the context of both exploration and exploitation, includes, first, the recovery of minerals from the seabed and their lifting to the water surface.

95. Activities directly connected with those mentioned in the previous paragraph such as the evacuation of water from the minerals and the preliminary separation of materials of no commercial interest, including their disposal at sea, are deemed to be covered by the expression “activities in the Area”. “Processing”, namely, the process through which metals are extracted from the minerals and which is normally conducted at a plant situated on land, is excluded from the expression “activities in the Area”. [...]

96. Transportation to points on land from the part of the high seas superjacent to the part of the Area in which the contractor operates cannot be included in the notion of “activities in the Area”, as it would be incompatible with the exclusion of transportation from “activities in the Area” in Annex IV, Article 1, paragraph 1, of the Convention. However, transportation within that part of the high seas, when directly connected with extraction and lifting, should be included in activities in the Area. In the case of polymetallic nodules, this applies, for instance, to transportation between the ship or installation where the lifting process ends and another ship or installation where the evacuation of water and the preliminary separation and disposal of material to be discarded take place. The inclusion of transportation to points on land could create an unnecessary conflict with provisions of the

³⁵ *Supra* note 12, para. 93. The Seabed Advisory Opinion states, in connection with ISA regulations, “...It therefore seems reasonable to assume that the meaning of an expression (or the exclusion of certain activities from the scope of that expression) in one provision also applies to the others”.

³⁶ *Supra* note 13, section 2.1.4., p.15.

Convention such as those that concern navigation on the high seas.”³⁷

25. The Seabed Advisory Opinion also stated that “... shipboard processing immediately above a mine site of minerals derived from that mine site,” referred to in Annex III, Article 17, paragraph 2(f) of UNCLOS, would be included in “activities in the Area”.³⁸

26. ISA Technical Study 25 explains the practical and regulatory implications of the designation of specific aspects of seabed mining falling within the purview of ISA relative to the UNCLOS regulatory regime for the high seas, as follows (emphasis added):

“A variety of classes of vessels will be used to conduct activities in the Area or to provide support services and they may be registered in the sponsoring State or in another flag State. [...] There will likely be new classes of ships which might necessitate the adaptation of existing or adoption of new international standards. Otherwise, the range of vessels subject to maritime regulation include transport (e.g. bulk carriers), [SPS], offshore supply vessels [...], as well as offshore installations (e.g. drill ships, semi-submersibles, platforms, etc., as [MODUs]. [SPS] is defined as ‘a ship of not less than 500 GT which carries more than 12 special personnel, i.e., persons who are specially needed for the particular operational duties of

the ship and are carried in addition to those persons required for the normal navigation, engineering and maintenance of the ship or engaged to provide services for the persons carried on board.’ MODU is defined as ‘a vessel capable of engaging in drilling operations for the exploration for or exploitation of resources beneath the seabed such as liquid or gaseous hydrocarbons, sulphur or salt. [...] Not all aspects and activities of MODUs are necessarily subject to IMO regulation. For example, whereas construction of MODUs is subject to an IMO standard, the activity of drilling on board is not. Similarly, whereas the seafaring crew of a drillship are subject to STCW requirements, the drilling crew are not. However, it is arguable that the [ILO’s MLC, 2006], would apply to the crew of a drillship.

The vessels employed may be manned or unmanned, remotely operated or automated or autonomous, and for which there are IMO as well as industry standards. There will also be a range of other technologies, not easily captured by the definition of ‘ship’ if at all, such as seabed excavators, collectors and pipelines. They are not addressed by IMO regulations and might raise new regulatory challenges for ISA. [...]

The consequence of using ships and installations to support

³⁷ *Supra* note 12. Under Article 139 of UNCLOS, there are complementary regulatory and liability responsibilities placed on States parties to ensure “... that activities in the Area, whether carried out by States Parties, or state enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, shall be carried out in conformity with this PArticle” Under Article 209, there are also specific obligations placed on States parties with respect to pollution from activities in the Area. The nature and extent of the relevant liability and responsibility are considered at length in the Seabed Advisory Opinion.

³⁸ *Ibid.*, para. 86.

activities in the Area is that two different regimes in UNCLOS, deep seabed mining in Part XI and navigation and shipping (which cut across UNCLOS), are juxtaposed and overlaid.”³⁹

27. Although the form of technology to be used in exploitation is yet unknown, the foregoing extract from ISA Technical Study 25 envisages that it might involve MODUs or similar units (as installations) which are treated as ships under a number of IMO instruments, including the STCW, and are likely to be registered in either the sponsoring State or another flag State.⁴⁰

28. In summary, in light of the Seabed Advisory Opinion, it seems clear that, although various categories of ships will be used to support activities in the Area by transporting the minerals to land or transporting supplies or personnel to the work site,⁴¹ for the most part, these ships will remain governed solely by the existing international maritime regime based on flag State jurisdiction and the instruments of ILO and IMO under Part VII of UNCLOS.⁴² These ships will not be the subject of ISA regulations related to activities in the Area.

However, ships engaged in activities in the Area and ships transporting minerals between the ships or installations in the Area in relation to extraction or for shipboard processing will be regulated by flag States and will also be subject to ISA regulations.

29. As alluded to earlier and discussed further in section 2 of this study, the question of the technology to be used in exploitation is unknown. This means that there may be some gaps with respect to technology or national practice for MODUs or installations in the future. This means, as evidenced in ISA Technical Study 25, that cooperation between ISA and other competent international organizations, including ILO, is essential.

2.3. Article 146 and the “effective protection of human life”

30. The *travaux préparatoires* of UNCLOS indicate that a provision referring to the protection of human life was included in the earliest informal text proposals considered by the UNCLOS preparatory committee, and that it related to a concern for the safety of persons engaged in seabed operations.⁴³ Apart from minor text changes involving the

³⁹ *Supra* note 13, p.18–19.

⁴⁰ Importantly, as a practical matter, aside from registration, almost every commercially operated ship—including, for most States, MODUs as well as fixed installations and equipment—are or can be inspected by one of the international classification societies (also known as “Recognized Organizations” or “ROs”) and classed and certified with respect to compliance with national standards (statutory certification). This includes the possibility for inspection for compliance with IMO instruments and ILO’s MLC, 2006, and various other industry standards for ships as well as offshore energy industries. The work done by the international classification societies, in turn, enables the owner of a ship to obtain insurance. These societies have developed a comprehensive system of standards, guidance and expertise for inspection and certification on behalf of national maritime administrations. Their role in helping to achieve effective implementation of international standards is recognized by IMO and explicitly addressed in ILO’s MLC, 2006.

⁴¹ In the offshore industry, helicopters are now often used to transport workers to platforms.

⁴² ISA Technical Study 25, *supra* note 13, considered the potential issue of cabotage and the treatment of offshore supply vessels and the domestic fleet under IMO conventions. This issue does not arise for the MLC, 2006, as it would apply to all ships, even those in domestic voyages.

⁴³ *Supra* note 28, p. 1030 and footnote 8 regarding the 1969 Report of the Seabed Committee’s Economic and Technical Sub-Committee, which received a proposal to supplement existing international conventions “so as to take account of problems relating to (i) the safety of construction equipment and operation of drilling rigs, production platforms, submersibles and other devices used for the exploitation and transportation of seabed resources and (ii) the safety of people working on these [...]” See also, for example, the 1970 Seabed

choice of the term “relevant” over “existing” treaties, the provision did not change in substance after the mid-1970s. Thus, it appears that the concern, at least in terms of ISA regulatory competence, specifically relates to the safety of humans involved in activities in the Area.

31. ISA Technical Study 25, in respect of Article 146 of UNCLOS, notes that (emphasis added):

"ISA's regulatory power for the protection of human life is a supplementary power, rather than an exclusive or a primary power. This implies that the lead regulators of this subject-matter are other competent international organizations. Safety of life at sea (defined broadly to include all matters addressed by [International Convention for the Safety of Life at Sea (SOLAS)], LLC and SARC) and seafarer training (STCW) are IMO responsibilities. Occupational health and safety of seafarers is an ILO responsibility. ISA's mandate concerns regulation for the protection of human life in relation to resource exploration and exploitation activities in the Area. To date, there appears to be ISA reliance on existing international standards through a rule of reference in the standard clauses of exploration contracts and the Draft Exploitation Regulations anticipate reliance on IMO and ILO standards on health and safety. A concern is that SOLAS and LLC apply to ships on international voyages, thus necessitating extension to cabotage by the sponsoring

State. A further matter is the security of personnel and possible protections under the [Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation (SUA Convention)]. The application of the SUA Protocol with respect to fixed platforms does not extend to activities in the Area."⁴⁴

32. As the foregoing extract concludes, the concern under Article 146 relates to the safety of life, including OSH, for personnel involved in activities in the Area.

2.4. Implementing Article 146 of UNCLOS: the ISA regulations

33. One way of evaluating whether an instrument can be considered a “relevant treaty” is to examine the meaning of “effective protection of human life” in the regulations developed so far by ISA to implement Article 146.

34. The following extracts from the ISA regulations that have been adopted or developed indicate that the regulatory approach of ISA has evolved. The regulations on prospecting and exploration deal with detail in the standard clauses for exploration contracts, while the most recent regulations, the Draft Regulations on Exploitation of Mineral Resources in the Area, limit the standard clause/contractual approach. Instead, they include key provisions combined with mandatory plans to be provided by contractors. The substantive content of the text has also evolved.

Committee meeting reports, which include extracts of a proposed text such as A/AC.138/SC.1/L.2, including a draft resolution proposed by a number of States indicating that “States shall adopt and ensure the application of appropriate international acceptable standards and procedures ... for the safety of life and property.”

⁴⁴ *Supra* note 13, p. 72.

35. The regulations on prospecting and exploration adopted in 2010,⁴⁵ 2012⁴⁶ and 2013⁴⁷ include the following standard contract clauses for contractors (emphasis added):

**"Annex IV Standard Clauses for Exploration Contract
Section 15 Safety, labour and health standards**

15.1 The Contractor shall comply with the generally accepted international rules and standards established by competent international organizations or general diplomatic conferences concerning the safety of life at sea, and the prevention of collisions and such rules, regulations and procedures as may be adopted by [ISA] relating to safety at sea. Each vessel used for carrying out activities in the Area shall possess current valid certificates required by and issued pursuant to such international rules and standards.

15.2 The Contractor shall, in carrying out exploration under this contract, observe and comply with such rules, regulations and procedures as may be adopted by [ISA] relating to protection against discrimination in employment, [OSH], labour relations, social security, employment security and living conditions at the work site. Such rules, regulations and procedures shall take into account conventions and recommendations of the [ILO] and other competent international organizations."

36. They all also include the following provision:

Part III Applications for approval of plans of work for exploration in the form of contracts

Regulation 23 Consideration by the Legal and Technical Commission

4. The Commission shall, in accordance with the requirements set forth in these Regulations and its procedures, determine whether the proposed plan of work for exploration will:
(a) Provide for effective protection of human health and safety...

The current text of the Draft Regulations on Exploitation of Mineral Resources in the Area,⁴⁸ the focus of this study, adopts a different approach, as it incorporates these issues directly into the regulations in addition to referring to them in the standard contractual clauses, as follows:

Section 3 Undertakings

3.2 The Contractor shall implement this contract in good faith and shall in particular implement the Plan of Work in accordance with Good Industry Practice. For the avoidance of doubt, the Plan of Work includes:

...
(g) The Health and Safety Plan and Maritime Security Plan, that are appended as schedules to this Contract, as the same may be amended from time to time in accordance with the regulations.

⁴⁵ Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, *Supra* note 8, See, in particular, section of 15 of Annex IV, Standard Clauses for Exploration Contract.

⁴⁶ Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, *Supra* note 9.

⁴⁷ Regulations on Prospecting and Exploration for Cobalt-Rich Ferromanganese Crusts in the Area, *Supra* note 10.

⁴⁸ *Supra* note 11.

The Draft Regulations on Exploitation of Mineral Resources in the Area refer to human life, health and safety in a number of provisions,⁴⁹ particularly draft Regulation 30, which is set out below (emphasis added):

**"Regulation 30
Safety, labour and health standards**

1. The Contractor shall ensure at all times that:

(a) All vessels and Installations operating and engaged in Exploitation activities are in good repair, in a safe and sound condition and adequately manned, and comply with paragraphs 2 and 3 below; and

(b) All vessels and Installations employed in Exploitation activities have an appropriate class designation and shall remain in class for the duration of the exploitation contract.

2. The Contractor shall ensure compliance with the applicable international rules and standards established by competent

international organizations or general diplomatic conferences concerning the safety of life at sea, the pollution of the Marine Environment by vessels, the prevention of collisions at sea and the treatment of crew members, as well as any rules, regulations and procedures and Standards adopted from time to time by the Council relating to these matters.

3. In addition, Contractors shall:

(a) Comply with the relevant national laws relating to vessel standards and crew safety of their flag State in the case of vessels, or their sponsoring State or States in the case of Installations; and

(b) Comply with the national laws of its sponsoring State or States in relation to any matters that fall outside of the jurisdiction of the flag State, such as worker rights for non-crew members and human health and safety that pertains to the mining process rather than to ship operation.

4. The Contractor shall provide copies of valid certificates

⁴⁹ *Ibid.* Other regulations covering this topic include Regulations 2 and 3, reproduced below (emphasis added):

**"Regulation 2
Fundamental policies and principles**

In furtherance of and consistent with Part XI of the Convention and the Agreement, the fundamental policies and principles of these regulations are, inter alia, to

...

(d) Provide for the protection of human life and safety;

**Regulation 3
Duty to cooperate and exchange of information
In matters relating to these regulations:**

...

(d) [ISA] shall consult and cooperate with sponsoring States, flag States, competent international organizations and other relevant bodies as appropriate, to develop measures to:

...

(i) Promote the health and safety of life and property at sea and the protection of the Marine Environment."

required under relevant international conventions to [ISA] upon request.

5. The Contractor shall ensure that:

(a) All of its personnel, before assuming their duties, have the necessary experience, training and qualifications and are able to conduct their duties safely, competently and in compliance with the Rules of [ISA] and the terms of the exploitation contract.

(b) An occupational health, safety and environmental awareness plan is put in place to inform all personnel engaged in Exploitation activities as to the occupational and environmental risks which may result from their work and the manner in which such risks are to be dealt with; and

(c) Records of the experience, training and qualifications of all of its personnel are kept and made available to the Secretary-General upon request.

6. A Contractor shall implement and maintain a safety management system, taking account of the relevant Guidelines.”

37. In addition, draft Regulation 7 requires that contractors provide a plan of work including, in paragraph 3 (f), “A Health and Safety Plan and a Maritime Security Plan prepared in accordance with Annex VI to these regulations.”

38. The scope of what is envisaged by the phrase “protection of human life” under the existing ISA regulations and the current Draft Regulations on Exploitation of Mineral Resources in the Area would benefit from clarification. The current draft Regulation 30 is entitled “Safety, **labour** and health standards” (emphasis added), and the text of its provisions refers to “treatment of crew” and “worker rights for non-crew members”. In addition, the contractual provisions in the existing ISA regulations appear to envisage a wide range of labour concerns. However, ISA Technical Study 25 and most provisions of the Draft Regulations on Exploitation of Mineral Resources in the Area focus on the safety of life and health, including OSH. In light of the *travaux préparatoires* for Article 146 of UNCLOS, while living conditions onboard a ship or installation are clearly linked to safety and health of the personnel working on board, other labour issues, such as social security and terms of employment, may exceed the scope of regulatory concern of ISA under Article 146.⁵⁰

⁵⁰ The Seabed Advisory Opinion, *Supra* note 14, para. 93, with respect to cases where ISA regulations may appear to exceed the scope of UNCLOS, comments that they should be understood as follows: “... The Regulations are instruments subordinate to the Convention, which, if not in conformity with it, should be interpreted so as to ensure consistency with its provisions. They may, nevertheless, be used to clarify and supplement certain aspects of the relevant provisions of the Convention.”

3. ILO, THE MLC 2006 AND ILO OSH INSTRUMENTS

39. Section 3 of this study focuses on ILO and its international legal instruments, in particular the MLC, 2006, addressing the safety and health of workers, as relevant treaties envisaged under Article 146 of UNCLOS that could apply to activities in the Area.

3.1. ILO

40. ILO was established in 1919 as part of the peace settlement after the first world war under the Treaty of Versailles and, in 1946, became the first United Nations specialized agency.⁵¹ It is “devoted to promoting social justice and internationally recognized human and labour rights, pursuing its founding mission that social justice is essential to universal and lasting peace...”.⁵²

41. There are currently 187 ILO member States.⁵³ Any United Nations Member

State, or States that are not members of the United Nations,⁵⁴ may become members of ILO.⁵⁵

42. ILO accomplishes its work through three main bodies: the International Labour Conference (ILC), its executive body (the Governing Body) and the secretariat (the International Labour Office). The International Labour Office is a permanent secretariat and the focal point for ILO’s activities. The Office prepares activities under the scrutiny of the Governing Body and the leadership of the Director-General.⁵⁶ ILO has cooperation agreements with many United Nations specialized agencies and other organizations, including the IMO,⁵⁷ although there is currently no cooperation agreement between ILO and ISA.

43. ILO is unique among the United Nations organizations because of its “tripartite”

⁵¹ *Supra* note 15. For details of its history, see: ILO, “History of ILO”, available at: <https://www.ilo.org/global/about-the-ilo/history/lang-en/index.htm>. See also the *ILO Declaration of Philadelphia* of 1944, which sets out the aims and purposes of ILO and the fundamental principles to inspire policy of its members, available at: <https://www.ilo.org/legacy/english/inwork/cb-policy-guide/declarationofPhiladelphia1944.pdf>

⁵² ILO, “Mission and impact of ILO”, available at: <https://www.ilo.org/global/about-the-ilo/mission-and-objectives/lang-en/index.htm>. See also *ILO Constitution*, *Supra* note 15.

⁵³ 187 States as of December 2019. For a list of countries, see: <https://www.ilo.org/global/about-the-ilo/how-the-ilo-works/member-states/lang-en/index.htm>

⁵⁴ See ILO, *Membership in the [ILO] Information Guide* (2014), p. 1.

Available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---jur/documents/genericdocument/wcms_441858.pdf

⁵⁵ The Member States of the United Nations that are not currently members of ILO are: Andorra, Bhutan, Democratic People’s Republic of Korea, Liechtenstein, Micronesia, Monaco and Nauru. In the context of this study, it should be noted that Nauru, a member of ISA, is also currently a sponsoring State.

⁵⁶ See ILO, “How the ILO works”, available at: <https://www.ilo.org/global/about-the-ilo/how-the-ilo-works/departments-and-offices/lang-en/index.htm>

⁵⁷ For a list and copies of the agreements, see: https://www.ilo.org/global/about-the-ilo/how-the-ilo-works/departments-and-offices/jur/legal-instruments/WCMS_442247/lang-en/index.htm

nature. This means that it operates on the basis of a core value called “tripartism” which is embedded in the ILO Constitution and its institutional structure.⁵⁸ Tripartism in the context of ILO has been described as follows:

Underlying ILO’s work is the importance of cooperation between governments and employers’ and workers’ organizations in fostering social and economic progress. ILO aims to ensure that it serves the needs of working women and men by bringing together governments, employers and workers to set labour standards, develop policies and devise programmes. The very structure of ILO, where workers and employers together have an equal voice with governments in its deliberations, shows social dialogue in action. It ensures that the views of the social partners are closely reflected in ILO labour standards, policies and programmes.⁵⁹

44. The process described above as “social dialogue” is central to the work of ILO.⁶⁰ This process can occur nationally or internationally. The ILC is a tripartite body, comprising governments, workers and employer representatives of ILO Member States, meets annually to, *inter alia*, set labour standards,⁶¹ adopt policies and programmes, and review the application of ILO international labour standards (conventions and recommendations) in member States. Since 1920, ILO has also convened special maritime sessions of the ILC.⁶² In addition, ILO organizes tripartite regional meetings and frequent tripartite meetings of experts and committees to address specific matters and develop guidelines and codes of practice.

45. ILO instruments can be implemented through national laws or regulations or, unless indicated otherwise, a collective bargaining agreement (CBA). ILO has a well-developed and robust system for reviewing the national implementation.⁶³ This is combined with a programme of technical cooperation, including training, to assist countries to improve national implementation of its standards.

⁵⁸ *Supra* note 15.

⁵⁹ See ILO, “Tripartism and social dialogue”, available at: <https://www.ilo.org/global/about-the-ilo/how-the-ilo-works/lang-en/index.htm>

⁶⁰ ILO, *Social Dialogue and Tripartism*, Report VI, ILC, 107th Session, 2018, ILO Doc. ILC.107/VI., para 6. Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_624015.pdf

⁶¹ Although workers, employers and government representatives of member States discuss texts, reports and other documents and have a right to vote on international labour standards (conventions and recommendations) or conference resolutions and declarations, the State must ratify an ILO convention, thus making it binding as a matter of conventional international law. See ILO’s “Labour Standards” website for more details of this process: <https://www.ilo.org/global/standards/introduction-to-international-labour-standards/international-labour-standards-creation/lang-en/index.htm>

⁶² A resolution was adopted in 1919 by the ILC, recognizing the special situation of seafarers and the need for a special session of the ILC devoted to this topic. See M. L. McConnell, D. Devlin and C. Doumbia-Henry, *The Maritime Labour Convention, 2006. A Legal Primer to an Emerging International Regime* (Leiden, Boston: Martinus Nijhoff, 2011), p. 66. Also, from the beginning, ILO established a bipartite commission, the Joint Maritime Commission, to advise the Governing Body on maritime questions, especially on the selection of items to be submitted to the maritime sessions of the ILC. See ILO, “Joint Maritime Commission”: https://www.ilo.org/global/industries-and-sectors/shipping-ports-fisheries-inland-waterways/shipping/WCMS_162320/lang-en/index.htm

⁶³ ILO supervisory system is complex. It involves an independent body of jurists called the Committee of Experts on the Application of Conventions and Recommendations (CEACR) that carries out an annual review of the national implementation of ILO instruments. See ILO, “Applying and promoting International Labour Standards”: <https://www.ilo.org/global/standards/applying-and-promoting-international-labour-standards/lang-en/index.htm>

46. In its 100 years, ILO has adopted 196 conventions⁶⁴ and 207 complementary recommendations,⁶⁵ as well as numerous guidelines and other guidance such as “codes of practice” for specific sectors and topics. It has also adopted many important declarations and resolutions, which, although not binding, can be considered as important tripartite statements of principles.

47. Eight of ILO conventions⁶⁶ and related recommendations are considered by ILO to be “fundamental” in terms of the principles and rights they address. The fundamental principles and rights at work are (a) freedom of association and the effective recognition of the right to collective bargaining (b) the elimination of all forms of forced or compulsory labour (c) the effective abolition of child labour and (d) the elimination of discrimination in respect of employment and occupation. Almost all ILO member States have ratified the eight fundamental conventions.⁶⁷

48. Apart from some maritime labour conventions, most ILO conventions enter into force a year after ratification by two or three States. Some conventions have a high level of ratification, while others have low levels of ratification. Many conventions are now outdated. However, because States

ratifying a revised or updated convention are not necessarily the same States that had ratified the older instruments, the older conventions remain in force. ILO has been working for many years to address this issue. This also means that, for every issue and convention, the specific details of ratification need to be considered to assess its application relative to a particular State.

49. ILO has always been concerned with the question of international workers – that is, workers who cross or work outside national jurisdictions and are often not covered by national legal provisions because their employer is based in another country⁶⁸ or because they work outside their home country. Globalization and the growth in third-party recruitment and placement and/or management services, often based in a third country that can act as the “employer”, further complicates the regulatory process. The maritime sector has been an important leader, due to ILO (and IMO) developing an effective international regulatory regime to respond to the situation of multinational employers, managers and workers in addition to being a workplace that moves among and beyond national jurisdictions.

50. Since it was established, ILO has been active in setting standards for the working

⁶⁴ As of December 2019, ILO has adopted 196 conventions (190 conventions and six protocols). In accordance with ILO practice, aside from the MLC, 2006, ILO instruments are numbered. For example, the Unemployment Indemnity (Shipwreck) Convention, 1920 (No. 8) is often described as “C8” or the Protocol of 1996 to the Merchant Shipping (Minimum Standards) Convention, 1976 as “P147”. Detailed information, a list and links to all instruments are available at: <https://www.ilo.org/global/standards/lang-en/index.htm>

⁶⁵ As of December 2019, recommendations are also numbered; for example, the Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204) is also often described as “R204”.

⁶⁶ Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87); Right to Organise and Collective Bargaining Convention, 1949 (No. 98); Forced Labour Convention, 1930 (No. 29); Abolition of Forced Labour Convention, 1957 (No. 105); Minimum Age Convention, 1973 (No. 138); Worst Forms of Child Labour Convention, 1999 (No. 182); Equal Remuneration Convention, 1951 (No. 100); Discrimination (Employment and Occupation) Convention, 1958 (No. 111).

⁶⁷ Aside from ratification of the conventions, these principles and rights are binding on members of ILO. ILO notes that as of 1 January 2019, there were 1,376 ratifications of these conventions, representing 92 per cent of the possible number of ratifications. At that date, a further 121 ratifications were required to meet the objective of universal ratification of all the fundamental conventions. For details and links to the eight conventions and ratifications, see <https://www.ilo.org/global/standards/introduction-to-international-labour-standards/conventions-and-recommendations/lang-en/index.htm>.

⁶⁸ ILO has also worked on the issue of Multinational Enterprises. See <https://www.ilo.org/global/topics/employment-promotion/multinational-enterprises/lang-en/index.htm>.

and living conditions of seafarers.⁶⁹ Although seafarers may also work on domestic fleets, most seafarers work on ships that operate internationally.⁷⁰ This means that they work on ships operating under the jurisdiction of a State (the “flag State”) which, increasingly since the 1920s, is not the State of nationality or ordinary residence of the seafarer. In many cases, the shipowner and/or operators are nationals or residents of third- or even fourth-party States. In addition, seafarers are often recruited and nominally employed by third-party agencies possibly based in yet another State. This multinational mix poses many difficulties for seafarers who may need to enforce employment or other rights. Furthermore, with the rise in risks such as piracy in some parts of the world or abandonment of ships and seafarers in foreign ports, the need to identify a legally responsible entity is even more important for seafarers. The MLC, 2006 addresses this issue.

51. ILO has adopted 43 conventions (including a protocol) and related recommendations dealing with seafarers’ working and living conditions.⁷¹ In 2006, almost all of these maritime labour conventions were updated and consolidated in the MLC, 2006,⁷² which is the focus of this study and is discussed in detail below in section 3.2 of this study.

52. In developing maritime labour instruments, in addition to the tripartite engagement with the representatives of the seafarer and shipowner organizations, ILO has also cooperated for many years with the World Health Organization and IMO in connection with medical examinations for seafarers and the presence of medicine chests on ships. ILO has a long history of cooperation with IMO, including jointly establishing several Joint Ad Hoc Working Groups.⁷³

53. While the focus of this study is on the application of the MLC, 2006 and other ILO instruments addressing health and safety of life, it is noted that ISA Technical Study 25⁷⁴ also raises the question of maritime security as a potential issue under Article 146 of UNCLOS. This question requires further study and cannot be addressed in this study beyond noting that ILO has examined the question of contemporary maritime security concerns in an important ILO convention, the Seafarer Identity Documents Convention (Revised), 2003, as amended (No. 185).⁷⁵ This convention adopts standards for, *inter alia*, biometric technology and related data storage, as well as the issuance of international seafarer identity documents by States to seafarers that are their nationals enabling the transit of seafarers through ports and countries to join or leave ships while

⁶⁹ *Supra note 63*, McConnell, et al., p. 37-91.

⁷⁰ As explained in the United Nations Conference on Trade and Development annual *Review of Maritime Transport 2018* at p.34, available at https://unctad.org/en/PublicationsLibrary/rmt2018_en.pdf:

“Most commercial ships are registered under a flag that differs from the flag of the country of ownership [...]. The three leading flags of registration are those of countries that are not major shipowners, namely Panama, the Marshall Islands and Liberia [...]. The Marshall Islands has continued to increase its market share in recent years and, as at January 2018, had become the world’s second largest registry. The fourth and fifth largest registries are Hong Kong (China) and Singapore, and accommodate both owners headquartered in each economy and owners from other economies.”

⁷¹ *Supra note 17*.

⁷² *Supra note 18*.

⁷³ *Supra note 29*. See, for example, “Joint IMO/ILO Ad Hoc Expert Working Group on Liability and Compensation regarding Claims for Death, Personal Injury and Abandonment of Seafarers”; “Joint IMO/ILO Ad Hoc Expert Working Group on the Fair Treatment of Seafarers in the Event of a Maritime Accident”. Available at: https://www.ilo.org/global/industries-and-sectors/shipping-ports-fisheries-inland-waterways/shipping/WCMS_162318/lang-en/index.htm

⁷⁴ *Supra note 13*, sections 5.2.1 and 5.2.3.

⁷⁵ Entered into force in 2005 and, as of December 2019, has been ratified by 35 States. See: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:93:0::NO::P93_ILO_CODE:C185

on voyages and, importantly, facilitate the exercise of seafarers' right to access onshore seafarers' welfare facilities.

3.2. The MLC, 2006 and Article 146 of UNCLOS

54. As discussed above in Part I, the scope of what is meant by "effective protection of human life" focuses on the safety of life, including OSH, for personnel involved in activities in the Area. This section provides a descriptive overview of the MLC, 2006 and will consider potential questions on the application of the MLC, 2006 to ships and installations that may be involved in activities in the Area. Assuming that the MLC, 2006 applies, some elements will be provided below to highlight key provisions on safety and health, including OSH, in the MLC, 2006 and the related ILO tripartite guidance on these issues.

3.2.1. Overview of the MLC, 2006

55. The MLC, 2006 is a complex international convention with many

elements of interest outside the scope of this study.⁷⁶ The overview in this section provides a summary description of its provisions and key features.

56. Following five years of intensive tripartite negotiation in international meetings, the MLC, 2006 was adopted in an almost unanimous tripartite vote at the 94th (Maritime) Session of the ILC. It entered into force in 2013 and, to date, has been ratified by 96 States representing 91 per cent of the world GT of ships.⁷⁷ Of these 96 States, 94 are members of ISA. Five of the current sponsoring States have not yet ratified the MLC, 2006.⁷⁸

57. The MLC, 2006 consolidates, and in many cases updates, 37 of the maritime labour conventions and related recommendations adopted by ILO to set international minimum standards for the working and living conditions of seafarers.⁷⁹ The MLC, 2006 can, therefore, be considered as establishing minimum international standards for almost every issue related to working and living on board a ship.⁸⁰

⁷⁶ For a comprehensive discussion of the MLC, 2006 and a history of the negotiations see *Supra note 63*, McConnell et al. In addition, see ILO's dedicated MLC, 2006 website at: <https://www.ilo.org/global/standards/maritime-labour-convention/text/lang--en/index.htm>, which contains links to numerous resources, including the Preparatory Reports (*travaux préparatoires*), which ILO calls Provisional Records (PR), and other documents leading to the adoption of the MLC, 2006. It also contains the documents and records of the Special Tripartite Committee (STC) meetings to adopt amendments to the Code for the MLC, 2006. See: <https://www.ilo.org/global/standards/maritime-labour-convention/special-tripartite-committee/lang--en/index.htm>. The website also has reports and documents with respect to events after 2006 related to the adoption of tripartite guidance on various matters. See: <https://www.ilo.org/global/standards/maritime-labour-convention/monitoring-implementation-tools/lang--en/index.htm>.

⁷⁷ *Supra note 19*. For a list of ratifications and other information, see ILO's dedicated MLC, 2006 website at <https://www.ilo.org/global/standards/maritime-labour-convention/monitoring-implementation-tools/lang--en/index.htm>. It should be noted that the GT figure is an underestimate, as some ships that are covered by the MLC, 2006 are not counted in the international data, which deals with merchant ships of 100 GT and above.

⁷⁸ Five of the current sponsoring States have not yet ratified the MLC, 2006: Brazil, Cuba, Czech Republic, Nauru and Tonga. Three of these sponsoring States have ratified earlier maritime labour instruments as well as many of ILO's OSH instruments. Tonga, a recent (2016) ILO member, has not yet ratified these instruments. Nauru is not currently a member of ILO.

⁷⁹ *Supra note 78*. 36 conventions and one protocol. Article X of the MLC, 2006 lists them. The revised or consolidated conventions will remain in existence (but are no longer open to ratification) until the MLC, 2006 is ratified by all States that have ratified these earlier instruments. From a legal perspective, they coexist with the MLC, 2006. However, their practical relevance would relate to the number of ratifications and the maritime role of the State concerned. For example, the Merchant Shipping (Minimum Standards) Convention, 1976 (No.147) (C147), one of the most influential of the maritime labour conventions, was ratified by 56 States but has now been denounced by 43 States when they ratified the MLC, 2006. The remaining States—Azerbaijan, Brazil, Costa Rica, Dominica, Egypt, Iceland (ratified the MLC, 2006 but remains bound by C147 until 3 April 2020), Iraq, Israel, Kyrgyzstan, Peru, Tajikistan, Trinidad and Tobago, and the United States—include a current ISA sponsoring State, Brazil.

⁸⁰ *Supra note 18*. ILO's fundamental conventions, such as the Freedom of Association and Protection of the Right

Given the subject matter of the convention and the high level of ratification by most, if not all, States with a maritime interest, it can be considered as relevant treaty under Article 146 of UNCLOS.

58. Although modified to reflect ILO tripartite and institutional approaches, the MLC, 2006 explicitly reflects the structure and some legal aspects of the IMO conventions, such as tacit acceptance, to allow for rapid updating of more technical detailed provisions, as well as a “no more

favourable treatment” provision for ships of non-ratifying States in relation to PSC. As part of aligning the MLC, 2006 with the wider IMO maritime regulatory regime, it has a section (referred to in the MLC, 2006 as a “Title”) devoted to enforcement and compliance which expressly builds upon the existing IMO regime under, *inter alia*, SOLAS⁸¹ and its International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code), with respect to ship inspection, certification and PSC.

to Organise Convention, 1948 (No. 87) and the Right to Organise and Collective Bargaining Convention, 1949 (No. 98), remain applicable independently of the MLC, 2006. The latter aspect is relevant in the context of concerns raised by workers or employers with ILO’s supervisory system and has an impact on potential enforcement action taken in connection with port State inspections of ships. See, for example, Guideline B 5.2.1, para. 2, of the MLC, 2006.

The following list of the main headings under the MLC, 2006 illustrates the comprehensiveness of the MLC, 2006:

- Title 1. Minimum requirements for seafarers to work on a ship
 - Regulation 1.1 - Minimum age
 - Regulation 1.2 - Medical certificate
 - Regulation 1.3 - Training and qualifications
 - Regulation 1.4 - Recruitment and placement
- Title 2. Conditions of employment
 - Regulation 2.1 - Seafarers’ employment agreements
 - Regulation 2.2 - Wages
 - Regulation 2.3 - Hours of work and hours of rest
 - Regulation 2.4 - Entitlement to leave
 - Regulation 2.5 - Repatriation
 - Regulation 2.6 - Seafarer compensation for the ship’s loss or foundering
 - Regulation 2.7 - Manning levels
 - Regulation 2.8 - Career and skill development and opportunities for seafarers’ employment
- Title 3. Accommodation, recreational facilities, food and catering
 - Regulation 3.1 - Accommodation and recreational facilities
 - Regulation 3.2 - Food and catering
- Title 4. Health protection, medical care, welfare and social security protection
 - Regulation 4.1 - Medical care on board ship and ashore
 - Regulation 4.2 - Shipowners’ liability
 - Regulation 4.3 - Health and safety protection and accident prevention
 - Regulation 4.4 - Access to shore-based welfare facilities
 - Regulation 4.5 - Social security
- Title 5. Compliance and enforcement
 - Regulation 5.1 - Flag state responsibilities
 - Regulation 5.1.1 - General principles
 - Regulation 5.1.2 - Authorization of recognized organizations
 - Regulation 5.1.3 - Maritime labour certificate and declaration of maritime labour compliance
 - Regulation 5.1.4 - Inspection and enforcement
 - Regulation 5.1.5 - On-board complaint procedures
 - Regulation 5.1.6 - Marine casualties
 - Regulation 5.2 - Port State responsibilities
 - Regulation 5.2.1 - Inspections in port
 - Regulation 5.2.2 - Onshore seafarer complaint-handling procedures
 - Regulation 5.3 - Labour-supplying responsibilities

⁸¹ International Convention for the Safety of Life at Sea, adopted 1 November 1974 (entered into force 25 May 1980) 1184 UNTS 2. Chapter IX of SOLAS refers to the ISM Code, adopted by Assembly Resolution A.741(18) on 17 November 1993.

59. In terms of application, like IMO conventions, ship certification under the MLC, 2006 is mandatory for ships 500 GT and above engaged in international voyages and ships 500 GT and above operating between ports in another country. An international voyage is defined according to the SOLAS definition. In addition, at the request of a shipowner, a ship can be certified for MLC, 2006 compliance by the flag State. Specifically, the system combines a Maritime Labour Certificate (MLC) issued by a flag State and a two-part Declaration of Maritime Labour Compliance (DMLC), Part I of which lists flag State requirements while Part II sets out the shipowners' measures to implement the flag State requirements. The MLC, 2006 explicitly provides for and regulates the role of ROs, usually international ship classification societies, in this matter. All but one of the nine regional PSC Memorandums of Understanding (PSC MOU) now carry out PSC for the MLC, 2006.⁸²

60. Most of the requirements under the MLC, 2006 are directed at States in their role as flag States. However, there are also so-called "labour-supplying States" with responsibilities, for example, for the regulation of recruitment and placement services operating in their territory or for the provision of social security to seafarers ordinarily resident in their territory. As noted above, there are also port State responsibilities, for example, with respect to PSC, access to medical care and access to shore-based welfare facilities.

61. As will be discussed in detail in section 4.2 of this study, in terms of the application, although the MLC, 2006 adopts many IMO concepts and practices and even wording in some cases, it is expressly intended to protect a wider group of workers on board ships as "seafarers" and a larger number of ships with less discretion than provided for in the predecessor ILO conventions. It has an inclusive definition of "seafarer" that does not distinguish between "crew" and other workers on board a ship and an inclusive definition of "ship" that has no minimum tonnage and relatively few exclusions from application. Although, as noted above, the ship certification regulations apply to the categories of ships covered by IMO conventions, the obligations with respect to the other requirements, including flag State inspections, also apply to ships operating in domestic voyage (cabotage) fleets.⁸³

62. In terms of structure, although its presentation differs, the MLC, 2006 builds on the IMO's STCW convention⁸⁴ and comprises three different but related parts: the Articles, the Regulations, and a two-part Code: Part A (mandatory Standards) and Part B (non-mandatory Guidelines) containing the details for the implementation of the Regulations.

63. Throughout the development of the text of the MLC, 2006, extensive consultations took place between ILO and IMO to harmonize wording and avoid potential uncertainty or conflicting requirements where areas of regulatory competence overlapped. The main IMO convention involved was the STCW,⁸⁵

⁸² For a description of PSC, see: <https://imo.org/en/OurWork/MSAS/Pages/PortStateControl.aspx>. For links to the PSC MOUs, see: <https://www.parismou.org/support/related-organisations>. There are nine regional PSC MOUs. The MLC, 2006 is not yet included under the Riyadh MOU (<https://www.riyadhmo.org/aboutmoutext.html>). However, that MOU includes the predecessor ILO convention, The Merchant Shipping (Minimum Standards) Convention, 1976 (No.147). The United States of America is not a member of any PSC MOUs but instead operates its own PSC regime. See: <https://www.dco.uscg.mil/Our-Organization/Assistant-Commandant-for-Prevention-Policy-CG-5P/Inspections-Compliance-CG-5PC-/Commercial-Vessel-Compliance/Foreign-Offshore-Compliance-Division/PortStateControl/>

⁸³ Other than those navigating "exclusively in inland waters or waters within, or closely adjacent to, sheltered waters or areas where port regulations apply". See MLC, 2006, Article II, para. 1 (j).

⁸⁴ *Supra* note 23.

⁸⁵ *Supra* note 25.

which was amended in 2010 (the Manila Amendments) and harmonized as much as possible with the MLC, 2006 provisions to avoid duplication. The main areas where this harmonization took place were: medical examinations/certificates, hours of work/rest, manning levels, training and medical care standards on board ships.

64. There were also discussions relating to IMO provisions on marine casualties, accommodation and OSH, as well as noise and vibration levels. Obviously, while there might be some differences in wording, the requirements under the IMO's STCW are generally not in conflict with MLC, 2006 on these matters. With respect to seafarers' training, the MLC, 2006 has relatively few training requirements, as it was agreed that IMO would take over responsibility for the training of one category of seafarers (able seafarers) formerly addressed under an ILO convention. However, ILO retained responsibility for training requirements for ships' cooks and has a regulation relating to general qualifications for positions on board ships and for personal safety training.⁸⁶ The safety training is worded to harmonize with the STCW requirements. This means that States that have addressed all these matters have, at least with respect to seafarers, complied with the STCW as well as, *de facto*, the MLC, 2006.

65. Following the adoption of the MLC, 2006, ILO has also adopted important international tripartite guidance to assist in national and industry implementation of the MLC, 2006.⁸⁷ Three of these publications are particularly relevant to this study, namely:

- Guidelines for implementing the MLC, 2006 OSH provisions⁸⁸
- Guidelines on the training of ships' cooks⁸⁹
- ILO/IMO Guidelines on the medical examinations of seafarers.⁹⁰

66. In relation to this study and any possible future tripartite discussion with ILO about the MLC, 2006 as concerns activities in the Area, it is to be noted that the MLC, 2006 establishes the STC which, when it meets, considers amendments to the Code of the MLC, 2006 as well as other matters.⁹¹ Since its entry into force, the MLC, 2006 has been amended at three meetings of the STC. The first amendment addressed what was considered to be "unfinished business" of the MLC, 2006 with respect to an ILO/IMO Joint Working Group and resolutions about the problem of abandonment of seafarers as well as the contractual liability of shipowners in relation to death and disability.⁹² The second amendment dealt with a technical matter relating to ship

⁸⁶ MLC, 2006, Regulation 1.3.

⁸⁷ ILO, *Guidelines for flag State inspections under the Maritime Labour Convention, 2006* (2009); *Guidelines for port State control officers carrying out inspections under the Maritime Labour Convention, 2006* (2009); *Handbook: Guidance on implementing the Maritime Labour Convention, 2006 and Social Security for Seafarers* (2012). All are available at: <https://www.ilo.org/global/standards/maritime-labour-convention/monitoring-implementation-tools/lang-en/index.htm>. See also *Handbook: Guidance on implementing the Maritime Labour Convention, 2006 - Model National Provisions* (2014), available at https://www.ilo.org/wcmsp5/groups/public/-ed_norm/--normes/documents/publication/wcms_170389.pdf.

⁸⁸ Available at: https://www.ilo.org/wcmsp5/groups/public/-ed_dialogue/--sector/documents/normativeinstrument/wcms_325319.pdf

⁸⁹ Available at: https://www.ilo.org/wcmsp5/groups/public/-ed_dialogue/--sector/documents/normativeinstrument/wcms_218575.pdf

⁹⁰ Available at: https://www.ilo.org/wcmsp5/groups/public/-ed_dialogue/--sector/documents/normativeinstrument/wcms_174794.pdf

⁹¹ See: <https://www.ilo.org/global/standards/maritime-labour-convention/special-tripartite-committee/lang-en/index.htm>

⁹² Amendments of 2014 to MLC, 2006, in force on 17 January 2017. See: https://www.ilo.org/wcmsp5/groups/public/-ed_norm/--relconf/documents/meetingdocument/wcms_248905.pdf

certificate renewals and provisions for OSH on “harassment and bullying”.⁹³ The third amendment focused on the employment rights of seafarers who are held captive as a result of an act of piracy or armed aggression against ships.⁹⁴

67. The next meeting of the STC will take place in 2021.⁹⁵ This may be considered an appropriate ILO tripartite forum for ILO to address any questions requiring clarification concerning national practices in the application of the MLC, 2006 or the possible need for amendments.

3.2.2. Seafarers, ships, installations and the MLC, 2006

68. This section outlines the provisions of the MLC, 2006 in respect of the application. It considers the scope of the application provisions of the MLC, 2006, in the light of the Seabed Advisory Opinion regarding activities in the Area and the extent of ISA’s regulatory responsibility.⁹⁶

69. The MLC, 2006 was specifically intended to cover a larger number of ships and seafarers than most of the earlier ILO maritime labour conventions or IMO conventions. A consideration of both the definition of “seafarer” and “ship” and any flexibility and exceptions is required to understand the applicability and scope of protection under the MLC, 2006. The previous ILO maritime labour instruments and the *travaux préparatoires* of the MLC, 2006 are also relevant in this regard.

70. Article II of the MLC, 2006 defines “seafarer” and “ship” and sets out scope-related provisions, determining, more

precisely, the application of the definitions. In connection with “seafarer”, Article II provides (emphasis added):

"1. (f) Seafarer means any person who is employed or engaged or works in any capacity on board a ship to which this Convention applies; [..]
2. Except as expressly provided otherwise, this Convention applies to all seafarers.
3. In the event of doubt as to whether any categories of persons are to be regarded as seafarers for the purpose of this Convention, the question shall be determined by the competent authority in each Member after consultation with the shipowners' and seafarers' organizations concerned with this question."

71. It is important to note that, other than cases of doubt provided for in paragraph 3, the MLC, 2006 does not currently have any provisions that “expressly provide otherwise” with respect to its application to seafarers. The following extract from the International Labour Office’s Report⁹⁷ to the ILC on the Draft MLC, 2006 convention, explains the history and policy behind these provisions:

5. The definition of a “seafarer” in subparagraph (f) of paragraph 1 was the subject of extended discussion throughout the development of the proposed Convention text. Although the current definition or variations on it are found in many international

⁹³ Amendments of 2016 to MLC, 2006, in force on 6 January 2019. See:

https://www.ilo.org/dyn/normlex/en/f?p=1000:51::NO:51:P51_CONTENT_REPOSITORY_ID:3303971

⁹⁴ Amendments of 2018 to MLC, 2006, expected to enter into force on 26 December 2020. See: https://www.ilo.org/wcmsp5/groups/public/--ed_norm/--normes/documents/meetingdocument/wcms_627161.pdf

⁹⁵ See: https://www.ilo.org/global/standards/maritime-labour-convention/events/WCMS_679152/lang--en/index.htm

⁹⁶ See the discussion in section 2 of this study and ISA Technical Study 25, *Supra note* 13, sections 2.4 and 2.5.

⁹⁷ ILO, *Adoption of an instrument to consolidate maritime labour standards*, Report I (1A) 94th ILC p.16. Available at: <https://www.ilo.org/public/english/standards/relm/ilc/ilc94/rep-i-1a.pdf>

labour Conventions, such as Conventions Nos. 164, 166, 178 and 179 and, more recently, Convention No. 185, there is now a greater awareness of the broad range of people who are employed at sea and who carry out jobs not traditionally understood to be part of the seafaring workforce or thought to be covered by the maritime labour Conventions. The content of many maritime labour Conventions primarily speaks to the employment situation of personnel involved in some way in the operation of the ship – the crew. In most cases, the crew are engaged directly or indirectly by the shipowner (broadly defined). There are a number of people working on board ships, particularly passenger ships, that may not fall within this category (such as aestheticians, sports instructors and entertainers). The employment situation and protection available to these maritime industry workers is less clear. The difficulty with leaving solely to national law the matter of determining which workers are to be considered as seafarers for the

purposes of the Convention is that it may perpetuate unevenness within the global maritime labour force with respect to the application of international standards. However, some national flexibility is provided for in paragraph 3...

8. In addition, [...], *paragraph 3* would provide governments with some additional flexibility and an ability to consider some categories of people as outside the protection of the Convention where their inclusion as “seafarers” may be wholly inappropriate. Such a determination would be subject to tripartite consultation on the particular category to be excluded and would be subject to the reporting requirement under paragraph [7].

72. Importantly, and like the oil and gas sector where many workers are self-employed contractors,⁹⁸ seafarers under the MLC, 2006 can also be self-employed contract personnel.⁹⁹ As discussed below, an important resolution concerning

⁹⁸ ILO, *Working conditions of contract workers in the oil and gas industries*, Working Paper No. 276, authored by Ian Graham (2010). Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_161194.pdf. This paper was prepared as a follow-up to an ILO Tripartite Meeting on Promoting Social Dialogue and Good Industrial Relations from Oil and Gas Exploration and Production to Oil and Gas Distribution in Geneva, 11–14 May 2009. It explains that:

“Contracting is on the increase. Across all industries and services sectors, the use of contract and agency labour has soared. [...] At the same time, the outsourcing of tasks to contractor and service companies has grown rapidly. The oil and gas industries are no exception to these trends. Upstream, contractor firms are at work in exploration, drilling, production, construction, transport and catering.” (p.1) “The oil and gas industries make wide-scale use of contracting. But its realities are particularly complex and do not closely resemble those in other industries. By the same token, the situation of oil and gas contract workers is not typical of contract and agency labour in other parts of the economy... [...] So, the term “contract worker” can in fact cover a wide range of employment relationships in the sector. It includes short-term workers with a direct contract, part-time workers with a direct contract, workers on a short-term commercial contract (whether fulltime or part-time), agency workers, day labourers, informal workers, and workers in any employment relationship with a contractor or subcontractor to an oil or gas company, including those providing services to one company on behalf of another” (pp. 3, 4)

⁹⁹ MLC, 2006, Standard A2.1, para. 1, with regard to the requirement that seafarers have a Seafarers’ Employment Agreement provides “... (or, where they are not employees, evidence of contractual or similar arrangements) providing them with decent working or living conditions on board the ship as required by this Convention”. In many cases, personnel that are considered “seafarers” are also employed by employers (e.g. franchisees) who are not shipowners. However, it is important that seafarers also have a single entity to hold responsible should any problems arise. Accordingly, seafarers must have an Agreement signed by a shipowner or a representative of the shipowner. The term “shipowner” is defined in Article II, para. 1 (j) and is based on the definition in the Recruitment and Placement of Seafarers Convention, 1996 (No. 179). It is also similar to a definition of

information on occupational groups¹⁰⁰ was adopted by the ILC when it adopted the MLC, 2006. It was intended to be authoritative international tripartite advice to national maritime administrations in the event of doubt as to whether “any categories of persons are to be regarded as seafarers”. The text of that resolution is set out in Appendix 1 of this study.

73. As the definition of “seafarer” indicates, the question of who a seafarer is also flows from the definition and scope provisions on ships. Article II provides:

1. (i) *Ship* means a ship other than one which navigates exclusively in inland waters or waters within, or closely adjacent to, sheltered waters or areas where port regulations apply.

4. Except as expressly provided otherwise, this Convention applies to all ships, whether publicly or privately owned, ordinarily engaged in commercial activities, other than ships engaged in fishing or in similar pursuits and ships of traditional build such as dhows and junks. This Convention does not apply to warships or naval auxiliaries.

5. In the event of doubt as to whether this Convention applies to a ship or a particular category of ships, the question shall be determined by the competent authority in each

Member after consultation with the shipowners’ and seafarers’ organizations concerned.

6. Where the competent authority determines that it would not be reasonable or practicable at the present time to apply certain details of the Code referred to in Article VI, paragraph 1, to a ship or particular categories of ships flying the flag of the Member, the relevant provisions of the Code shall not apply to the extent that the subject matter is dealt with differently by national laws or regulations or [CBAs] or other measures. Such a determination may only be made in consultation with the shipowners’ and seafarers’ organizations concerned and may only be made with respect to ships of less than 200 [GT] not engaged in international voyages.

74. As the foregoing indicates, the MLC, 2006 has very few exceptions, with no general tonnage limit and applies to both domestic and international fleets, albeit with some flexibility for smaller domestic fleet ships and some national flexibility “in the event of doubt” about the application to a ship or a particular category of ships.¹⁰¹ In relation to this study, these provisions expressly refer to SPS in connection with requirements laid down in Title 3 regarding accommodation. Undoubtedly, some ships involved in supporting or undertaking activities in the Area will be considered to be

a “company” adopted by IMO in the ISM Code provisions under SOLAS. It reflects the principle that shipowners are the responsible employers under the MLC, 2006 with respect to all seafarers on board their ships, without prejudice to the right of the shipowner to recover the costs involved from others who may also have responsibility for the employment of a particular seafarer. This is also expressly stated in MLC, 2006, Standard A2.5, para. 4, on repatriation.

¹⁰⁰ Adopted on 22 February 2006. *Resolutions adopted by the ILC at its 94th (Maritime) Session*. Available at: https://www.ilo.org/global/standards/maritime-labour-convention/WCMS_088130/lang-en/index.htm

¹⁰¹ For example, as discussed in section 3.2.3 below, regarding OSH, Title 3 addresses the standards for accommodation which affect ship design and equipment. This Title has several “unless expressly provided otherwise” provisions tailoring the application of requirements affecting ship structure and design, notably in connection with “older ships” or specific sizes or categories of ships.

SPS. The reference to these ships in Title 3 indicates that they are covered by the MLC, 2006 provisions and, indeed, the *travaux préparatoires*¹⁰² make it clear that they were discussed at length and extensively covered by the MLC, 2006. However, as the resolution concerning information on occupational groups indicates, there may be cases of doubt as to whether some categories of persons on board these or other ships are to be regarded as seafarers.¹⁰³ In that case, the resolution provides guidance as to how this question should be resolved.

75. In summary, there are few exceptions to the application of the MLC, 2006. There may, however, be cases of doubt as to whether a ship or a category of the ship is considered a ship under the MLC, 2006 or whether categories of persons working on a ship are to be regarded as seafarers. The latter question should be resolved through tripartite consultation by flag States applying the resolution concerning information on occupational

groups.¹⁰⁴ *Prima facie*, the absence of an express exception for MODUs and similar platforms (installations) can be understood to mean that they are not excluded from the application of the MLC, 2006. This would also be understood to be the case since several of the predecessor ILO maritime labour instruments,¹⁰⁵ in particular, the widely ratified C147, contained provisions on MODUs. However, the *travaux préparatoires* for the MLC, 2006 suggest that, depending on the development of technology, there may, in the future, be a question about varying national practices with respect to the treatment of MODUs or similar installations as for the ships.¹⁰⁶

76. At ILO's PTMC in 2004, the question of the application of the future MLC, 2006 to "oil rigs and platforms" was extensively debated by a working group because of a lack of agreement among representatives¹⁰⁷ about including an additional exclusion under Article II for "[d] oil rigs and drilling platforms [when

¹⁰² Preparatory Technical Maritime Conference (PTMC), *Record of Proceedings* 5 (Rev.) Geneva, 13-24 September 2004, Report of Committee No. 2, See paras. 355-510.

¹⁰³ *Supra* note 101. See Appendix 1 to this study.

¹⁰⁴ *Supra* note 101.

¹⁰⁵ The predecessor ILO conventions which, in most cases, applied to seafarers, defined as "any person employed in any capacity on board a seagoing ship" (or a similar formulation), varied in their treatment of oil rigs and drilling platforms. For example, C147, *Supra* note 80, excludes "oil rigs and drilling platforms when not engaged in navigation"; the Recruitment and Placement of Seafarers Convention, 1996 (C179) defines "seafarer" as "any person who fulfils the conditions to be employed or engaged in any capacity on board a seagoing ship other than a government ship used for military or non-commercial purposes [and] to the extent it deems practicable, after consultation with the representative organizations ... of owners of maritime mobile offshore units and seafarers serving on such units, as the case may be, the competent authority may apply the provisions of the Convention ... to seafarers serving on maritime mobile offshore units"; the Social Security (Seafarers) Convention (Revised), 1987 (C165) excludes "(ii) vessels such as oil rigs and drilling platforms when not engaged in navigation; the decision as to which vessels and installations are covered by clauses (i) and (ii) being taken by the competent authority of each Member in consultation with the most representative organisations of shipowners and seafarers." Several conventions do not refer to oil rigs or platforms.

¹⁰⁶ PTMC, *Record of Proceedings* 4 (Rev.), Geneva, 13-24 September 2004, "Report of Committee No. 1". See paras. 46-68. Available at: <https://www.ilo.org/public/english/standards/relm/maritime/pdf/rp-4.pdf>

¹⁰⁷ *Ibid.* See, for example, paras. 54-55:

"54. The Seafarer Vice-Chairperson deemed the proposal by the Government member of the Republic of Korea to be helpful, since fixed drilling platforms needed to be distinguished from self-powered mobile platforms. Since his group wanted all seafarers on moveable platforms to be protected, even while these units were anchored to the seabed and drilling, it would only agree with the deletion of the bracketed text, if they were adequately protected as other workers on platforms. A situation where seafarers on moveable platforms would be treated as seafarers under IMO instruments (e.g. the [STCW, 1978] and the International Safety Management Code, 1998), but would not fall under this Convention and would not be adequately covered otherwise, needed to be avoided.

55. The Government member of the United Kingdom stressed that [MODUs] were considered ships under IMO regulations, as well as in ILO Conventions Nos. 147 and 178."

not engaged in navigation]. (Modified C.147A1/4(c)).” The Working Group was unable to reach an agreement, and consequently, the outcome was reported as a suggestion to delete the proposed draft exclusionary text (emphasis added):

“... paragraph 4, subparagraph (d) in its entirety, thereby leaving the Convention silent on this issue. This would mean States could apply the provisions fully, partially or not at all to these vessels, at their discretion.”¹⁰⁸

77. The difficulty encountered in the Working Group was that flag States had different practices with respect to MODUs. Some treated MODUs like “ships” while navigating but not when stationary, others treated them as ships in all cases, and some did not treat them as ships at all. In addition, there were concerns that many IMO instruments treated MODUs as ships and that this would create uncertainty if the MLC, 2006 did not cover the seafarers working on them either. While it was

¹⁰⁸ *Ibid.*, para. 66.

¹⁰⁹ *Ibid.*, for example, paras. 63–64:

“63. The Seafarer Vice-Chairperson suggested that the Working Party should re-examine the issue with the participation of IMO, as it had great experience in the application of maritime instruments in the area of mobile maritime offshore units. Although it was clear that different countries had different regimes, the important thing was to ensure that all seafarers were adequately protected and to recognize that some people employed on offshore rigs were in fact seafarers.

64. The Government member of Mexico supported this suggestion. The emphasis needed to be on formulating a text that would ensure all seafarers on rigs were covered by the Convention, while excluding all those who were not seafarers.”

¹¹⁰ *Ibid.*, para. 59, notes options considered by the Working Group, including “(4) introducing a clause to the effect that the Convention applied to oil rigs and drilling platforms where a coastal State did not itself regulate in this area”.

¹¹¹ See, for example, the latest comments by ILO’s CEACR on Panama’s report on implementation of the MLC, 2006 (emphasis added):

“Direct Request (CEACR) - adopted 2017, published 107th ILC session (2018)

General questions on application. Scope of application. Article II, paragraphs 1(f) and (i), 3 and 5 of the Convention. Seafarers and ships. Technical personnel on offshore drilling platforms or [MODUs]. In its previous comment, the Committee noted that, in accordance with the legislation applying the Convention, technical personnel on offshore drilling platforms or MODUs shall not be considered as seafarers, except for persons who, on account of their training and qualifications, are covered under the regulations of the [STCW Convention] (section 3 of Executive Decree No. 86 of 2013 and Merchant Marine Circular 265 (MMC-265) of 21 January 2013). It also noted that, in accordance with MMC-251 of 24 July 2012, the certification required by Regulation 5.1.3 of the Convention only applies on a voluntary basis to platforms or MODUs. The Committee requested the Government to clarify whether platforms or MODUs were considered “ships” for the purpose of the application of the Convention. The Committee notes the Government’s indication in its

accepted that seafarers could work on board MODUs, even when stationary and carrying out drilling activities, the issue was not fully addressed.¹⁰⁹

78. In the context of this study, it is important to appreciate that the discussion in 2004 related to the offshore oil and gas industry and, specifically, rigs or platforms operating on the continental shelf of coastal States. The views of the members of the working group assumed that the coastal State legislation applied to the workers, especially those on fixed platforms, thus rendering flag State ship-related regulations potentially unnecessary or potentially in conflict.¹¹⁰ There was no consideration of the question of MODUs or other units carrying out exploitation outside any national territorial jurisdiction, i.e., in the Area.

79. In summary, as recently explained by ILO’s CEACR, if MODUs or installations are considered by the flag State to be ships under the MLC, 2006, then it would apply to MODUs, installations and all seafarers on board carrying out activities in the Area.¹¹¹ Given the high level of MLC,

2006 ratification, if all flag States involved applied the MLC, 2006 to MODUs and installations, this would cover almost every ship likely to be involved,¹¹² and the MLC, 2006 would seamlessly apply to MODUs and installations involved in exploitation, as well as to ships transporting the minerals between ships and installations (also considered as “activities in the Area” in the Seabed Advisory Opinion¹¹³). In addition, assuming ratification of the MLC, 2006 by the flag State concerned, although outside the ISA regulatory remit, it would apply to all ships involved in support activities even if the voyage is considered cabotage. This means that the only outstanding question would concern cases of doubt as to whether certain “categories of persons” working on board would be regarded as seafarers.¹¹⁴ The ILO resolution concerning

information on occupational groups provides advice to flag States on resolving these situations with respect to particular categories of persons on ships.¹¹⁵ If the flag State and the sponsoring State are the same, then this is an ideal situation (assuming ratification of the MLC, 2006) for the protection of all personnel. The question of the status and protection of specific categories of personnel, in the event of doubt as to whether they are to be regarded as seafarers, can be resolved with representative organizations at the national level. Protection for this personnel, if not considered seafarers, would need to be evaluated by all concerned. ILO’s CEACR and the supervisory system would consider concerns about national implementation.¹¹⁶

report that platforms or MODUs are considered “ships”, in accordance with the MLC, 2006. The Committee recalls that the Convention does not allow for the partial application of its provisions if the ship concerned is a ship covered by the Convention and if the workers concerned come within the definition of “seafarer” in the Convention. The Committee requests the Government to indicate the measures adopted to ensure that all workers on MODUs enjoy the protection provided by the Convention, and that such platforms are subject to mandatory certification when they fall within the cases specified in Regulation 5.1.3, namely ships of: (a) 500 [GT] or over, engaged in international voyages; and (b) 500 [GT] or over, flying the flag of a Member and operating from a port, or between ports, in another country (Regulation 5.1.3., paragraph 1)."

Available at: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:80031:0::NO::P80031_COMMENT_ID:3342272. It is noted that Panama is currently the world’s largest flag State based on GT.

¹¹²The specific issues of one ISA member State that is a sponsoring State and not yet a member of ILO (Nauru), and four other sponsoring States who have not yet ratified the MLC, 2006 has been previously noted: see: *Supra* note 79.

¹¹³*Supra* note 40.

¹¹⁴MLC, 2006, Article 2, para. 3.

¹¹⁵*Supra* note 101, and Appendix 1 to this study. It provides, *inter alia*, for the following criteria (emphasis added):

“In considering how to resolve such doubts, the following issues should be considered:
(i) the duration of the stay on board of the persons concerned;
(ii) the frequency of periods of work spent on board;
(iii) the location of the person’s principal place of work;
(iv) the purpose of the person’s work on board;
(v) the protection that would normally be available to the persons concerned with regard to their labour and social conditions to ensure they are comparable to that provided for under the Convention.”

¹¹⁶Nevertheless, the overall situation is legally complex. The following extracts from the legislation of a State that is both a flag State and coastal State with an offshore oil and gas sector, to address the application of national legislation implementing the MLC, 2006 on ships and mobile offshore units, indicates the complexity.

“Section 3. Application of the Ship Labour Act to persons working on board mobile offshore units.

For employees working on board mobile offshore units and who are included in the manning certificate, the Ship Labour Act, with the exception of section 4-6 first paragraph (a), shall apply. The provisions of the Ship Labour Act sections 4-1, 4-2, 4-3 and 4-4 first and second paragraphs may be departed from in [CBAs] or upon written agreement between the parties. For employees not included in the mobile offshore unit’s manning certificate, sections 4-6 first paragraph (e), 8-1, 8-2, 8-5, 9-2, 9-3 and 9-4 of the Ship Labour Act shall apply. For independent contractors working on board Norwegian

80. If a flag State involved in activities in the Area does not consider MODUs or installations to be ships under the MLC, 2006, there may be uncertainty in the future, at least with respect to the application of the MLC, 2006. A sponsoring State could, however, establish the provisions of the MLC, 2006 as the minimum standards for sponsorship, or if it has ratified the MLC, 2006, the MODU or installation could be flagged in the sponsoring State. This situation appears to already be addressed in draft Regulation 30 of the Draft Regulations on Exploitation of Mineral Resources in the Area. Similarly, if the flag State involved in activities in the Area applies the MLC, 2006 to MODUs when navigating, for example, to arrive above the Area, but does not apply it to MODUs when not navigating, for example, in case of a fixed installation, a similar solution could apply through the sponsoring State. In addition, as discussed in the next section of this study, there may be other protections for safety and health matters under ILO OSH instruments, if they are considered applicable by the sponsoring State. This situation also appears to be addressed in draft Regulation 30 of the

Draft Regulations on Exploitation of Mineral Resources in the Area.

81. In conclusion, if a flag State does not consider MODUs and installations to be ships, and if, in the future, MODUs are involved in activities in the Area, there may be a question with respect to some flag States and their practices in applying the MLC, 2006 to personnel (both seafarers and other personnel, if not seafarers).¹¹⁷ However, as discussed in ISA Technical Study 25,¹¹⁸ MODUs are dealt with as ships in many IMO instruments, including, importantly, the STCW, which applies to particular categories of seafarers working on MODUs. In the future, depending on technological developments, the question of flag State practices in relation to MODUs and installations is a matter that would benefit from further discussion and study to harmonise current practices with respect to activities in the Area. Pending further information on the technology and equipment to be used in exploitation, the approach of using rules of reference in the regulations to rely on the development of instruments¹¹⁹ through ILO and IMO is advisable.¹²⁰

mobile offshore units, Chapters 8, 9 and 10 of the Ship Labour Act shall apply. Mobile offshore unit means a unit as defined in Regulations of 26 June 2007 No. 706 on the scope of application of the Ship Safety and Security Act for mobile offshore units. This provision shall apply when the mobile offshore unit is in transit or operating on a foreign shelf..."

See Norwegian Maritime Authority, *Regulations of 19 August 2013 No. 990 on the scope of application of the Ship Labour Act*. Available at: <https://www.sdir.no/contentassets/83dbf265be524194be1f45cd092f8b4c/19-august-2013-no.-990-scope-of-application-of-the-ship-labour-act.pdf?t=1574774492475>

¹¹⁷ It would, however, apply to ships used to transport minerals between exploitation and processing units located in the Area.

¹¹⁸ *Supra note 13*, pp. 18-19.

¹¹⁹ The Working Group at the PTMC dealing with the question of application to MODUs considered an option for ILO to develop an instrument to clarify these issues and the situation of offshore oil and gas workers. However, at that time, it was not seen as feasible in the short term. *Supra note 111*, para. 59.

¹²⁰ ISA Technical Study 25, *Supra note 13*, p.19, expressed a similar view. It should also be noted that ILO has a sectoral department that addresses the oil and gas industry, but the question of categories of workers on board and whether they are seafarers has not been addressed. A recent report on the protection of workers on oil rigs and platforms in extreme cold conditions states that:

[t]his report covers workers involved in the processes of exploration, extraction, and transport of oil and gas by air, rail, supply ship and crane, in polar and subarctic climate zones of the northern hemisphere, including operators and specialized service companies. This report does not cover the seafarers "bill of rights" which is covered by the [MLC, 2006].

ILO, *Report for discussion at the Tripartite Sectoral Meeting on Occupational Safety and Health and Skills in the Oil and Gas Industry Operating in Polar and Subarctic Climate Zones of the Northern Hemisphere*, Geneva, 26-29 January 2016. Available at: https://www.ilo.org/sector/Resources/publications/WCMS_438074/lang-en/index.htm

82. Despite the legal questions regarding flag State practices, it is important to note, especially in the context of labour matters and ILO, that there are already industry agreements and practices in place regarding MODUs and installations. For example, an international seafarers' representative organization has a standard form for CBAs for seafarers working on offshore vessels or mobile offshore units.¹²¹ The CBA form refers to and applies the provisions of the MLC, 2006.

83. This study is not concerned with the IMO conventions, as these are discussed in detail in ISA Technical Study 25. However, the regulatory interaction between the IMO and ILO in this sector is very important. Although ILO has not yet addressed this

question, it should be noted that IMO appears to refer to and regulate, at least to some degree, safety of life at sea, including medical examinations for an increasingly broad range of workers engaged in the offshore sectors. For example, although most IMO regulations focus on ships' masters, officers and other "crew", some instruments refer to categories called "special personnel"¹²² on SPS under the SPS Code or in connection with MODUs.¹²³ In addition, IMO is currently developing what will be either a code or mandatory provisions related to SOLAS with respect to an emerging category of ocean workers referred to as "industrial personnel" in the offshore industries, including "ocean mining".¹²⁴

¹²¹ The International Transport Workers' Federation. Available at: <https://www.itfseafarers.org/en/resources/materials/offshore-standard-agreement-2015>. Nautilus, for example, (representing maritime professionals in the United Kingdom, Netherlands and Switzerland), in the case of SPS, has CBAs for some categories of seafarers, as well as for workers operating ROVs and for seabed cable laying engineers. See: <https://www.nautilusint.org/en/our-union/where-we-work/offshore/> and <https://www.nautilusint.org/en/our-union/where-we-work/specialist-vessels/>. Although personnel is drawn from a wide range of professions, there may be specific collective agreements in place that provide protection similar to that provided by the MLC, 2006.

¹²² IMO, *Code of Safety for Special Purpose Ships, 2008*, Resolution MSC.266(84), adopted on 13 May 2008 (emphasis added):

"1.3.11 "Special personnel" means all persons who are not passengers or members of the crew or children under one year of age and who are carried on board in connection with the special purpose of that ship or because of the special work being carried out aboard that ship. [...] Special personnel are expected to be able bodied with a fair knowledge of the layout of the ship and to have received some training in safety procedures and the handling of the ship's safety equipment before leaving port and include the following:

1. scientists, technicians and expeditionaries on ships engaged in research, non-commercial expeditions and survey;

2. personnel engaging in training and practical marine experience to develop seafaring skills suitable for a professional career at sea. Such training should be in accordance with a training programme approved by the Administration;

[...]

4. salvage personnel on salvage ships, cable-laying personnel on cable-laying ships, seismic personnel on seismic survey ships, diving personnel on diving support ships, pipe-laying personnel on pipe layers and crane operating personnel on floating cranes; and

5. other personnel similar to those referred to in 1 to 4 who, in the opinion of the Administration, may be referred to this group."

¹²³ For example, in connection with MODUs, IMO, *Recommendations on Training of Personnel on Mobile Offshore Units (MOUs)*, Doc. A 21/Res.891, Resolution A.891(21) adopted on 25 November 1999, Section 2.1. para. 12:

Special personnel means all persons carried on board a mobile offshore unit in connection with the special purpose of the unit or with special work being carried out on the unit, and who are neither seafarers nor directly or indirectly paying passengers.

¹²⁴ Although the text is still at a draft stage, industrial personnel are currently defined as follows (emphasis added):

"3.5 Industrial personnel means all persons who are transported or accommodated on board for the purpose of offshore industrial activities performed on board other ships and/or offshore facilities.

3.6 Offshore industrial activities mean the construction, maintenance, decommissioning, operation or servicing of offshore facilities related, but not limited, to exploration and

84. Although these categories have been developed to address the safety of life concerns in the context of IMO, including, in the industrial personnel case, safe transfer of personnel from ships to offshore installations, it is clear that there is a growing international awareness of the range of personnel travelling to and from work and working offshore in a wide range of ocean-related activities.¹²⁵ It also seems clear that, despite this recognition, there is currently no overall coherence, at least at the international treaty level, in the categorization or treatment of these workers, who will be drawn from various countries and professions and work in diverse employment and contractual situations.

3.2.3. OSH and training under the MLC, 2006

85. This section highlights the key provisions of the MLC, 2006 regarding health and safety, including OSH and training aspects.¹²⁶

86. Draft Regulation 30 of the Draft Regulations on Exploitation of Mineral Resources in the Area¹²⁷ is primarily concerned with safety and health.¹²⁸ In addition, draft Regulation 7, paragraph 3(f), requires that contractors provide a plan of work that includes, *inter alia*, a health and safety plan.

87. The MLC, 2006 provisions on safety and health, including OSH, take account of the unique workplace experience of seafarers. For most seafarers, particularly those engaged in international voyages, the ship is not simply a place of work. It is also their home for extended periods of time. For this reason, the MLC, 2006 requires the following (emphasis added):

"Regulation 3.1 - Accommodation and Recreational Facilities

1. Each Member shall ensure that ships that fly its flag provide and maintain decent accommodations and recreational facilities for seafarers working or living on board, or both, consistent with promoting the seafarers' health and well-being.

[...]

Standard A3.1 - Accommodation and recreational facilities

2. In developing and applying the laws and regulations to implement this Standard, the competent authority, after consulting the shipowners' and seafarers' organizations concerned, shall:

(a) take into account Regulation 4.3 and the associated Code provisions on health and safety protection and accident prevention, in light of the specific needs of seafarers that both live

exploitation of resources by the renewable or hydrocarbon energy sectors, aquaculture, ocean mining or similar activities."

See: IMO, *Mandatory Instrument and /or Provisions Addressing Safety Standards For The Carriage of More Than 12 Industrial Personnel on Board Vessels Engaged on International Voyages, Report of the Correspondence Group*. Submitted by Norway, Sub-Committee on Ship Design and Construction, IMO Doc No. SDC 7/6/1, 30 October 2019, Pre-session public release.

¹²⁵ In that respect, it is noted that the representatives of both the international shipowners' and seafarers' organizations that are part of ILO's STC are also involved in the development of IMO draft instrument relating to industrial personnel, and would be aware of these broader groups of ocean workers and personnel.

¹²⁶ Training in OSH is clearly a central aspect of effective OSH protection, and, in the context of work on ships, specific safety- and competency-related qualifications are mandatory under the MLC, 2006 and under IMO's STCW and SOLAS conventions and related instruments (e.g. ISM Code).

¹²⁷ *Supra* note 11.

¹²⁸ Including draft para. 5(b): **"An occupational health, safety and environmental awareness plan is put in place to inform all personnel engaged in Exploitation activities as to the occupational and environmental risks which may result from their work and the manner in which such risks are to be dealt with"** (emphasis added).

and work on board ship; and [...]
Regulation 4.3 - Health and safety protection and accident prevention
1. Each Member shall ensure that seafarers on ships that fly its flag are provided with occupational health protection and live, work and train on board ship in a safe and hygienic environment..."

88. As the above extract indicates, there is explicit interaction between the many detailed provisions regarding accommodation and the provisions specifically addressing "health and safety protection and accident prevention" as a workplace matter under the MLC, 2006. Regulation 3.1 and the Code dealing with accommodation and recreational facilities include references to both ILO and IMO instruments related to these issues (such as noise and vibration).¹²⁹ Provisions relating to food safety under Regulation 3.2 and the Code dealing with "Food and catering" are also important in helping to ensure seafarers' health whilst living and working on board ships.¹³⁰

89. In addition, many issues that are addressed in the MLC, 2006, such as the minimum age of seafarers, medical fitness for duties, hours of rest and work, manning levels, annual leave, training, medical care on board ships, etc. are inherently related to the overall safety and health of seafarers. This means that

issues of OSH in the maritime context are relatively complex.

90. Aside from these wider safety and health issues, the MLC, 2006 divides concerns about seafarers' safety and health into provisions related to on-board accommodation under Title 3 and those related to tasks carried out by seafarers, in the provisions on OSH under Regulation 4.3 on "Health and safety protection and accident prevention". Importantly, in connection with the more work-place oriented aspects, the text of Regulation 4.3 and the Code in the MLC, 2006 reflects the advice of ILO OSH experts regarding contemporary OSH management system approaches.¹³¹ It also references ILO general OSH instruments and predecessor ILO instrument and guidance.

91. The core requirements under Regulation 4.3 are (emphasis added):

"1. Each Member shall ensure that seafarers on ships that fly its flag are provided with occupational health protection and live, work and train on board ship in a safe and hygienic environment.

2. Each Member shall develop and promulgate national guidelines for the management of [OSH] on board ships that fly its flag, after consultation with representative shipowners' and seafarers' organizations and taking

¹²⁹ Guideline B3.1.12, para. 4.

¹³⁰ Regulation 3.2 has the following purpose: "To ensure that seafarers have access to good quality food and drinking water provided under regulated hygienic conditions".

¹³¹ *Supra note 102*, p.44, comments that:

.... The text of this Regulation and the related Code provisions reflect advice from the relevant ILO [OSH] experts on both the content and the approach in these provisions, including the suggestion that on-board [OSH] should take into account and adopt the general approach proposed in the Guidelines on Occupational Safety and Health Management Systems ILO-OSH, 2001. In addition, it was suggested that Regulation 4.3 and the Code provisions should be informed by the concepts and standards referred to in other ILO instruments and the other standards to which they refer. The proposed Convention seeks to incorporate these ideas (for example, by requiring ships to have [OSH] management systems) in the provisions consolidating the existing maritime Conventions dealing with occupational health and accident prevention.

into account applicable codes, guidelines and standards recommended by international organizations, national administrations and maritime industry organizations.

3. Each member shall adopt laws and regulations and other measures addressing the matters specified in the Code, taking into account relevant international instruments, and set standards for [OSH] protection and accident prevention on ships that fly its flag."

92. Following an OSH management system approach rather than setting out technical details which would need to be reviewed and updated regularly, the emphasis in these provisions is on ensuring that applicable OSH and other international standards, guidance, etc. are taken into consideration and applied. Accordingly, Standard A4.3, paragraph 4, provides that:

4. Compliance with the requirements of applicable international instruments on the acceptable levels of exposure to workplace hazards on board ships and on the development and implementation of ships' [OSH] policies and programmes shall be considered as meeting the requirements of this Convention.

93. Under Regulation 4.3 and the Code, importance is placed on the role of the ship safety committee and the

seafarer representative.¹³² Workplace safety committees that include worker representatives are a recurrent feature of ILO OSH instruments.

94. In addition, the Guidelines in Part B of the Code in the MLC, 2006 refer to specific ILO OSH instruments and codes of practice¹³³ and list the following specific issues to be considered in connection with OSH. The emphasized sections indicate the overlap with the seafarers' accommodation provisions in Regulation 3.1 and the Code (emphasis added):

"Guideline B4.3

2. The competent authority should ensure that the national guidelines for the management of [OSH] address the following matters, in particular:

- (a) general and basic provisions;**
- (b) structural features of the ship, including means of access and asbestos-related risks;**
- (c) machinery;**
- (d) the effects of the extremely low or high temperature of any surfaces with which seafarers may be in contact;**
- (e) the effects of noise in the workplace and in shipboard accommodation;**
- (f) the effects of vibration in the workplace and in shipboard accommodation;**
- (g) the effects of ambient factors, other than those referred to in subparagraphs (e) and (f), in the workplace and in shipboard accommodation, including tobacco smoke;**

¹³² Standard A4.3, paras. 1(c) and 2(d).

¹³³ For example, ILO, *Accident Prevention on board ship at sea and in port, 1996: an ILO code of practice*, and subsequent versions (none as of 2019), available at: https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/normativeinstrument/wcms_107798.pdf; ILO, *Ambient factors in the workplace: An ILO code of practice* (2001), available at: https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/normativeinstrument/wcms_107729.pdf

- (h) special safety measures on and below deck;
- (i) loading and unloading equipment;
- (j) fire prevention and fire-fighting;
- (k) anchors, chains and lines;
- (l) dangerous cargo and ballast;
- (m) personal protective equipment for seafarers;
- (n) work in enclosed spaces;
- (o) physical and mental effects of fatigue;
- (p) the effects of drug and alcohol dependency;
- (q) HIV/AIDS protection and prevention; and
- (r) emergency and accident response.

3. The assessment of risks and reduction of exposure on the matters referred to in paragraph 2 of this Guideline should take account of the physical occupational health effects, including manual handling of loads, noise and vibration, the chemical and biological occupational health effects, the mental occupational health effects, the physical and mental health effects of fatigue, and occupational accidents. The necessary measures should take due account of the preventive principle according to which, among other things, combating risk at the source, adapting work to the individual, especially as regards the design of workplaces, and replacing the dangerous by the non-dangerous or the less

dangerous, have precedence over personal protective equipment for seafarers.

4. In addition, the competent authority should ensure that the implications for health and safety are taken into account, particularly in the following areas:

- (a) emergency and accident response;**
- (b) the effects of drug and alcohol dependency;**
- (c) HIV/AIDS protection and prevention; and**
- (d) harassment and bullying."¹³⁴**

95. Addressing all of these and other matters, such as the ship safety committee, health and safety risk awareness information and training, food safety, transfers to and from ships and procedures for investigation and reporting of an incident, as well as equipment and task-specific training and protection (e.g. divers) would be considered as minimum requirements in any OSH plan for ships or installations involved in activities the Area. The OSH provisions also include requirements regarding the need for instruction (training on OSH), including specific provisions addressed to the "safety and health education of young seafarers".¹³⁵ This concern for the safety and health of young seafarers is also found in other parts of the MLC, 2006.

96. Importantly, in 2015, nearly a decade after the adoption of the MLC, 2006, ILO adopted authoritative tripartite guidance with respect to these OSH provisions. The Guidelines for implementing the occupational safety and health provisions

¹³⁴ Added in the Amendments of 2016 to the Code of the MLC, 2006, *Supra note 95*. The Amendments also include a provision in Guideline B4.3.6, para. 2(g), regarding the investigation of problems arising from harassment and bullying and a provision in Guideline B4.3.1, para. 1, referring to the *Guidance on eliminating shipboard harassment and bullying*, jointly published by the International Chamber of Shipping and the International Transport Workers' Federation.

¹³⁵ Standard A4.3, para. 1(a), and Guidelines B4.3.9 and B4.3.10.

of the MLC, 2006 (the MLC, 2006 OSH Guidelines 2015) set out a basic framework and approach to these issues and take account of the relevant ILO OSH instruments and relevant IMO instruments.¹³⁶

97. Independent of any future ISA review of contractor work plans, it is important to note that OSH and other safety and health matters would already be the subject of flag State inspections in connection with ship inspection and certification under the MLC, 2006, as well as the subject of PSC. It is also important to recall that IMO has specific safety requirements, some of which also deal with the OSH matters mentioned above, as well as requirements for a safety management plan under the ISM Code. These IMO instruments are discussed in ISA Technical Study 25 and would also need to be addressed by shipowners in relation to flag State ship safety inspections and certification, and ship insurance.

98. The MLC, 2006 contains only a few provisions on the training of seafarers, other than in connection with OSH, which is, for the most part, also tied to IMO provisions. The main regulation relating to training, Regulation 1.3, "Training and qualifications", is linked to an agreed transfer to the IMO of training responsibilities for able seafarers. It requires that all seafarers on board be trained for safety issues (as also required by the STCW) and also be trained, certified as competent or otherwise qualified to perform their duties.¹³⁷ However, other than one profession (ships' cooks), the details of professional training and qualifications for the many different positions on board a ship (for example, a ship's doctor¹³⁸ or other positions) are not addressed by ILO at the international level but left to national legislation.¹³⁹ The training of ships' cooks remains a matter under the competence of ILO. In addition to MLC, 2006, Regulation 3.2 and the Code, ILO adopted tripartite

¹³⁶ *Supra* note 93. Available at: https://www.ilo.org/sector/Resources/codes-of-practice-and-guidelines/WCMS_325319/lang-en/index.htm

¹³⁷ Regulation 1.3, paras. 1-2.

¹³⁸ There is also a provision, Standard A4.1, para. 4(c), that follows the STCW requirements for the level of medical aid training required of seafarers providing medical care and administering medicine when there is no medical doctor on board.

¹³⁹ *Supra* note 102, p. 33, which explains (emphasis added):

"2. The PTMC decided that this Regulation should not be followed by any indication that its provisions could be the subject of Standards or Guidelines. This was in response to a communication from IMO regarding its willingness to take responsibility for the training and certification requirements for able seafarers if these were transferred by ILO. The PTMC agreed with this transfer, but also agreed with the view that it was necessary to include general provisions on training in the consolidated [MLC] in view of the comprehensive nature of this consolidating Convention and to justify the closure of the ...[conventions], which are listed in Article X, and also to ensure that any personnel who may not be covered by IMO STCW provisions are trained or otherwise qualified. For example, a person hired as a nurse or doctor on a ship would be expected to meet any national standards for those positions. However, the competent authority of a Member will not be responsible for the training or evaluation of the person for that position, but simply for requiring shipowners to ensure that personnel meet relevant national standards. This concept is set out in paragraph 1 of the Regulation.

3. It should be noted that the transfer of seafarers' training and certification responsibility to IMO does not include training of ships' cooks, a matter that will remain with ILO and is addressed in the Convention under Title 3.

4. Paragraph 2 proposes a requirement that would ensure that all seafarers have basic personal safety training for work on board a ship. This is already a requirement under the STCW Convention. During consultations it was recommended that the terminology already developed under the STCW Convention and Code be either adopted or referenced. The current provision reflects the advice of IMO on the appropriate wording to ensure that it is consistent with the STCW. However, in its comments (Part II, General discussion, paragraph 12), IMO noted that, unlike the proposed Convention, the STCW does not allow for substantial equivalence, a matter which may be important from the perspective of ILO oversight process."

guidance on the question of training ships' cooks under the MLC, 2006 in 2014.¹⁴⁰

99. With respect to the concerns in this study and the training of personnel other than seafarers governed by the STCW, it can be seen from the above extracts that, other than ships' cooks, the MLC, 2006 adopted an approach that recognizes the diversity of occupations on board ships and does not regulate them directly. Instead, it requires that the flag State or shipowner ensure that they are trained and qualified to perform their duties on board the ship.

100. Such an approach, as currently reflected in the Draft Regulations on Exploitation of Mineral Resources in the Area, seems advisable for workers with differing occupations engaged in activities in the Area. To the extent that professions are regulated by IMO, this is already covered. Still, other occupations may have many professional qualifications for which detailed regulation at the international level would not be appropriate. However, irrespective of the specific tasks or roles to be performed on board a ship, it is important for all personnel to comply with the requirements for personal safety or familiarization for safety purposes, as provided under the MLC, 2006, Regulation 1.3, paragraph 2, the STCW and the emerging IMO provisions industrial personnel.

101. As the foregoing indicates, the MLC, 2006 would apply to ships engaged in activities in the Area. However, there may

be a question, in the future, regarding national practices and MODUs and installations as the technology employed becomes clearer. The MLC, 2006 and its related guidance can be regarded as a relevant treaty in relation to the effective protection of human life under Article 146 of UNCLOS. Although there may be some specific issues, such as the use of helicopter travel to the workplace or some equipment-specific matters that are not addressed by the MLC, 2006, an OSH management systems approach, which requires regular reviews and updates to address developing technologies and workplace risks and hazards,¹⁴¹ could address these situations.

3.3. ILO OSH instruments, training and Article 146 of UNCLOS

102. As explained above in section 3.2, if a ship is involved in activities in the Area, for most flag States, protection of seafarers' health and safety, including OSH, will be governed by the MLC, 2006 and the related ILO guidance, as well as by IMO safety-related instruments. In case of doubt as to whether specific categories of personnel working on a ship are to be regarded as seafarers, the question would be resolved at the national level in accordance with the MLC, 2006, taking into account ILO resolution concerning information on occupational groups.¹⁴²

¹⁴⁰ *Supra* note 93.

¹⁴¹ As required under Standard A4.3, para. 3:

The laws and regulations and other measures referred to in Regulation 4.3, paragraph 3, shall be regularly reviewed in consultation with the representatives of the shipowners' and seafarers' organizations and, if necessary, revised to take account of changes in technology and research in order to facilitate continuous improvement in occupational safety and health policies and programmes and to provide a safe occupational environment for seafarers on ships that fly the Member's flag.

¹⁴² *Supra* note 101 and see Appendix 1 to this study. This would require consideration at the national (flag State) level of whether the personnel involved have "protection that would normally be available to the persons concerned with regard to their labour and social conditions to ensure they are comparable to that provided for under the Convention." In the context of OSH, despite potentially differing employment terms for some personnel, if not considered seafarers, it is likely that many aspects of a ship's OSH management plan (which, as discussed above, would need to take account of a wide range of OSH matters, such as ventilation,

103. However, as also discussed in section 3.2, considering the differing practices among flag States, and depending on the development of the technology for exploitation, a question may arise in the future as to whether MODUs or similar platforms and installations are to be treated as ships. This section examines other ILO OSH instruments that could also be considered applicable as “relevant treaties” under Article 146 of UNCLOS.

104. Exploitation in the Area is yet to commence. As such, technology and probable workplace situations are still evolving. However, assuming similarity with offshore oil and gas resource exploitation in terms of the working and living environments and the OSH issues faced by workers, there is an array of OSH conventions that could be considered as relevant treaties under Article 146. As discussed above in section 3.2.3, the MLC, 2006 OSH provisions and the MLC, 2006 OSH Guidelines 2015 are based upon and refer to ILO’s OSH instruments, as well as more specific maritime OSH instruments. There are also several general OSH conventions and numerous technical issue-specific OSH instruments, guidelines and other guidance (codes of practice) considered applicable to the offshore oil and gas sector.¹⁴³ However, there is currently no specific ILO instrument regarding standards for workers in the offshore oil and gas industry.

105. Since 1919, ILO has adopted more than 40 international instruments specifically dealing with OSH, as well as over 40 codes of practice. The latter

are not binding but reflect authoritative international tripartite views on practices to be followed. In addition, many other ILO instruments deal directly or indirectly with broader health and safety issues, such as the minimum age for work, hours of rest and work, medical fitness, etc.

106. The key normative ILO instruments for OSH were noted in Part I of this study (ILO conventions C187, C155 and P155, C161 and the related recommendations).¹⁴⁴ These instruments contain some obligations at the company or enterprise level but, for the most part, are directed to States and require the development of OSH-related national standards and policies. The ILO Guidelines on Occupational Safety and Health Management Systems (ILO-OSH 2001), based on contemporary systems management approaches to OSH, are affiliated with these instruments.¹⁴⁵ As explained by ILO:

“[The Guidelines] provide detailed guidance and tools for assisting organizations, competent national institutions, employers, workers and other social partners in establishing, implementing and improving occupational safety and health management systems, with the aim of reducing work-related injuries, ill health, disease, incidents and deaths. ILO-OSH 2001 provides a unique international model, compatible with other management system standards and guides. The guidelines also reflect ILO values such as tripartism

vibration/noise in accommodation, and emergency response) would *de facto* apply to all personnel working on board the ship. There may, of course, be some occupation-specific OSH aspects (e.g. ROV operators or divers) as well as broader health issues, such as fatigue and hours of work/rest, annual leave, etc. that may need to be specifically considered.

¹⁴³ See ILO’s Oil and Gas Sectoral department webpage, “Occupational safety and health in the oil and gas production and oil refining sector”, which lists the key normative OSH instruments. Available at: https://www.ilo.org/safework/industries-sectors/WCMS_219028/lang--en/index.htm. There are also many other technical instruments that can apply as discussed *infra*.

¹⁴⁴ *Supra* notes 31, 32 and 33.

¹⁴⁵ Available at: https://www.ilo.org/global/topics/safety-and-health-at-work/normative-instruments/WCMS_107727/lang--en/index.htm

and relevant international standards. They comprise a set of five elements integrated in a continuous cycle of policy, organizing, planning, implementation, evaluation and action for improvement. These follow the internationally accepted Demming cycle of Plan-Do-Check-Act, which forms the basis of the “systems” approach to managing OSH. ILO-OSH 2001 encourages the integration of OSH management system elements into overall policy and management arrangements of the enterprise. Although it is not legally binding and its application does not require certification, as with other international standards, countries may formally recognize it as good practice and use it in developing their own guidance on the subject. ILO-OSH 2001 promotes the establishment of a national framework for OSH-MS including the nomination of competent institution(s) for OSH-MS, the formulation of a coherent national policy, and the establishment of a framework for an effective national application of ILO-OSH 2001.”¹⁴⁶

107. There are also more technical issue-specific instruments that have been considered as applicable to the oil and gas sector and may apply to activities in the Area, to the extent that the mining technology used is similar and if national law so provides.¹⁴⁷

108. In addition, although ILO no longer has a cooperation agreement with the International Organization for Standardization (ISO),¹⁴⁸ as explained in the 2016 ILO Report relating to polar and subarctic offshore exploration and exploitation:

“ILO has been participating in the process of formalizing ISO 45001 on the basis of a Memorandum of Understanding signed by the two organizations in August 2013. ISO 45001 is expected to be adopted in late 2016; it is now at the stage of the preparatory technical work. The standard will set requirements for OSH management systems and is designed to help companies and organizations around the world ensure the health and safety of workers.”¹⁴⁹

¹⁴⁶ ILO, *Issues paper for discussion at the Sub-Saharan African Tripartite Workshop on Occupational Safety and Health in the Oil and Gas Industry*, Maputo, Mozambique, 17–18 May 2017. Available at https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/meetingdocument/wcms_554798.pdf, p. 20.

¹⁴⁷ In this sector, see ILO Code of practice, *Safety and health in the construction of fixed offshore installations in the petroleum industry* (1981). The *Issues paper*, *Supra note* 154, section 2.1.1, p. 10, also lists a number of potentially relevant instruments, in addition to the key normative OSH Conventions:

“Other international labour standards relevant to OSH in the oil and gas industry include instruments on protection against specific risks, especially the Occupational Cancer Convention, 1974 (No. 139), the Working Environment (Air Pollution, Noise and Vibration) Convention, 1977 (No.148), the Asbestos Convention, 1986 (No. 162), the Chemicals Convention, 1990 (No. 170), the Prevention of Major Industrial Accidents Convention, 1993 (No.174), the Radiation Protection Convention, 1960 (No. 115), and their accompanying Recommendations.”

ILO report on offshore activities in extreme cold, *Supra note* 126, at p.10, also emphasizes the relevance of ILO’s *Ambient factors in the workplace*, *Supra note* 140.

¹⁴⁸ Decision taken by ILO Governing Body at its 331st session 7 Nov 2017. See: https://www.ilo.org/gb/decisions/GB331-decision/WCMS_592322/lang-en/index.htm. See also, *ILO Review of the implementation of ILO-ISO agreements*: 25 October 2017, ILO doc. GB.331/INS/10. Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_586273.pdf

¹⁴⁹ *Supra note* 126, at section 2.4.1.

109. ISO standard ISO 45001 on OSH was published in 2018. The importance of ILO's OSH instruments, including the OSH Guidelines referred to above, is evident in the ISO's description of its new standard (emphasis added):

"The standard was developed by a committee of occupational health and safety experts and follows other generic management system approaches such as ISO 14001 and ISO 9001. It was based on earlier international standards in this area such as OHSAS 18001, the ILO-OSH Guidelines, various national standards and the ILO's international labour standards and conventions."¹⁵⁰

110. Although the ISO standards are not treaties, they reflect a high level of international agreement among governments on a range of standards on many different topics. It is noted that the ISO has numerous safety and other standards for the offshore industry, including ROVs and ROV operators.¹⁵¹

111. With respect to the issue of training and offshore platforms, there is no instrument that specifically addresses training for offshore professions (other than the IMO and ILO maritime labour conventions), as it would require a profession-by-profession review and involve questions of national professional qualifications. However, in 2012, ILO organized a Global Dialogue Forum on

Future Needs for Skills and Training in the Oil and Gas Industry¹⁵² to examine, *inter alia*, the problem of skilled worker shortages, demographic challenges with an aging workforce, the need to improve skills training and to make use of locally-based workers rather than international expatriates. It also discussed several ILO programmes under its Skills and Employability Branch.¹⁵³ The report prepared for the Forum also specifically considered the issue of OSH training for the oil and gas sector, which, as noted above, in the offshore sector, encounters OSH issues similar to many that would be of concern in relation to activities in the Area:

3. [OSH] training for contract and subcontract workers

57. Over the past three decades, the growing sophistication of production systems and the increased flexibility of labour markets and legislation have led to the development of a multiplicity of contractual arrangements for workers. [...] There are legitimate reasons for these arrangements, and they are recognized in several ILO standards. Non-standard forms of employment and the precariousness that often accompanies them give rise to concerns over their impact on the enjoyment of fundamental principles and rights at work and other work-related rights, particularly OSH. [...] Governments, employers and workers have a mutual interest in maximizing OSH and environmental

¹⁵⁰ See: ISO, *Occupational health and safety*. Available at: <https://www.iso.org/iso-45001-occupational-health-and-safety.html>

¹⁵¹ *Supra* note 126. Figure 4, at p. 12, contains a helpful chart of all the available ISO instruments. See also: ISO, *Petroleum and natural gas industries – Design and operation of subsea production – Part 8: Remotely Operated Vehicle (ROV) interfaces on subsea production systems*, ISO 13628-8:2002. Available at: <https://www.iso.org/standard/37291.html>

¹⁵² See: ILO, *Current and future skills, human resources development and safety training for contractors in the oil and gas industry*, ILO Doc. No. GDFOGI/2012. Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/meetingdocument/wcms_190707.pdf

¹⁵³ See: ILO, "Skills policies and systems", at <https://www.ilo.org/skills/areas/skills-policies-and-systems/lang-en/index.htm>

protection. Advancement of safety technologies and human factors are equally important. Multinational companies and the IndustriAll have concluded several global framework agreements (GFAs) or international framework agreements. For example, the GFA at Lukoil and Statoil includes provisions for safety and health protection of contract and subcontract workers working for these multinational enterprises to better understand human factors in OSH. [...] ILO Conventions and/or Recommendations concerning OSH include training provisions. The main instruments are the Occupational Safety and Health Convention, 1981 (No.155), the Occupational Health Services Convention, 1985 (No.161), the Chemicals Convention, 1990 (No.170), the Prevention of Major Industrial Accidents Convention, 1993 (No. 174), and the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187), and their accompanying Recommendations. [...] There is no ILO instrument exclusively covering contract and subcontract workers in the oil and gas industry with regard to OSH. Only Convention No.174 states that the Convention applies to major hazard installations, including oil and gas facilities, and pipelines (Article 1). With regard to employers' responsibilities, the Convention lays down that employers shall provide "organizational measures, including training and instruction of personnel, the provision of equipment in

order to ensure their safety, staffing levels, hours of work, definition of responsibilities, and controls on outside contractors and temporary workers on the site of the installation (Article 9).¹⁵⁴

112. As the report and the ILO 2010 working paper on contract workers in the oil and gas sector explain,¹⁵⁵ there are several general OSH instruments that could apply to personnel in this sector, a sector with professions similar to those likely to be involved in activities in the Area. They further note that there are various industry agreements that seek to address OSH and other issues.¹⁵⁶

113. The question of whether these OSH instruments are all relevant treaties under Article 146 of UNCLOS would, as discussed in section 2.1 of this study above, assuming subject relevance, depend on the extent of ratification (particularly in the light of the practices of sponsoring States) and national implementation. The sponsoring State, if it has ratified the above-mentioned ILO OSH conventions, could require contractor compliance with its national legislation, assuming its national legislation permits application to activities in the Area. However, since this approach would depend on national ratification and implementation of several instruments, it may result in uneven OSH protection of workers involved in activities in the Area.

114. ILO has significant OSH expertise and important guidelines for OSH management systems. It would be important in developing any detailed ISA

¹⁵⁴ *Supra*, note 147 at paragraph 57

¹⁵⁵ *Supra* note 99.

¹⁵⁶ See, for example, the contract clauses and global agreement referred to in the 2010 working paper, *ibid.*, on contract workers in the offshore oil and gas sector. The appendices to that study include extracts from the following: Model agreement on the division of responsibilities between operator and contractor companies on mobile petroleum structures on the Norwegian continental shelf; Language on contracting in GFAs between trade unions and multinational corporations in the oil and gas sector (selected extracts); Oil and gas operators From Statoil Hydro's agreement with IndustriEnergi (Norway) and the International Federation of Chemical, Energy, Mine and General Workers' Unions (current version signed on 13 November 2008 and valid until 1 September 2010).

guidelines to work with ILO and benefit from its expertise. In addition, as noted in ISA Technical Study 25, in connection with safety of life and the IMO:

"[T]he future development of guidelines for contractors' safety management systems for seabed mining has a useful precedent in the ISM Code. The ISM Code, a SOLAS instrument, could serve as a model for the development of a safety management system for seabed mining. This is another area where IMO experience and expertise could be helpful."¹⁵⁷

115. As discussed above in connection with the MLC, 2006 OSH provisions, several OSH elements in the MLC, 2006 overlap with IMO instruments related to human safety. Therefore, it would be useful for ISA to consider developing any ISA guidelines on a health and safety plan in collaboration with both ILO and IMO.



¹⁵⁷ *Supra* note 13, p. 58.

4. FINDINGS, ISSUES AND NEXT STEPS

116. This section summarizes the key findings of this study, identifies issues including possible regulatory gaps, and suggests potential next steps for ISA.

4.1. Findings

The interface between ISA and ILO under Article 146 of UNCLOS

117. This study has examined the potential interface of competencies between ILO and ISA under UNCLOS, and under Article 146 in particular. It was commissioned by ISA as a follow-up to ISA Technical Study 25, which provides a comprehensive analysis of the interface of the competencies of ISA and the IMO in connection with activities in the Area.¹⁵⁸ This study emphasizes that Article 146 of UNCLOS and the “effective protection of human life” fall within the competency of IMO and its instruments addressing the safety of life at sea. It also points to the complementary competency of ILO under Article 146 in connection with OSH for personnel involved in activities in the Area.

118. The present study, building on ISA Technical Study 25, found that under Article 94 of UNCLOS, ILO and IMO have a complementary relationship in elaborating the international regulatory regime pertaining to seafarers and the duties of flag States. It also found that the analysis

of the interface between IMO and ISA competencies advanced in ISA Technical Study 25 applies equally to the interface between ILO and ISA under Article 146. This study has highlighted the connections between safety and health, including OSH, for seafarers, addressed in the IMO and ILO instruments. It is clear that ILO and IMO, and their respective instruments, have a similar complementary interface with ISA under Article 146 of UNCLOS due to the effective protection of the safety and health of the personnel likely to be involved in exploitation in the Area.

The MLC, 2006 as a relevant treaty under Article 146 of UNCLOS

119. The key legal question for this study was to assess the potential application of ILO instruments, especially the MLC, 2006, in helping to ensure the effective protection of human life in connection with “activities in the Area”, the scope of which was clarified in the Seabed Advisory Opinion.¹⁵⁹ Taking into account the ISA Regulations¹⁶⁰ and the Draft Regulations on Exploitation of Mineral Resources in the Area,¹⁶¹ it was found that the meaning and scope of Article 146 are not entirely clear. However, legal questions regarding UNCLOS interpretation are beyond the scope of this study. Irrespective of these detailed matters of legal drafting, the primary concern of Article 146 and draft

¹⁵⁸ *Ibid.*

¹⁵⁹ *Supra* note 12.

¹⁶⁰ *Supra* notes 8, 9 and 10.

¹⁶¹ *Supra* note 11.

Regulation 30 is clearly the protection of the safety of human life, which is understood to include OSH and training. ISA Technical Study 25 reached a similar conclusion, that:

"The intention of the provision is for ISA to regulate for the protection of human life on safety aspects concerning exploration and exploitation in a manner to complement international regulations already adopted by other organizations. These organizations are IMO, which has extensive maritime safety and seafarer training regulation discussed further below, and ILO concerning occupational health and safety for seafarers, but outside the remit of this report."¹⁶²

120. With respect to the question of relevant treaties and ILO instruments that could apply to ensure effective protection of life under Article 146, this study focused on the MLC, 2006, specifically its provisions on OSH. It found that the MLC, 2006 is a comprehensive international maritime labour convention establishing international minimum standards for almost every aspect of working and living conditions for seafarers, including OSH and wider safety and health-related provisions. The MLC, 2006 has a high level of ratification by almost all States with a maritime interest. Like the IMO instruments, it is primarily based on flag State implementation and requires inspections and certification of ships that voyage internationally. However, because of ILO's mandate with respect to labour matters, it applies to a broader range of ships, with very few exceptions, and to a broader range of personnel working on board these ships, than the IMO instruments. It was noted that the technology that will be used for exploitation in the Area is still unknown. It is possible that, in the future, questions could arise with respect to national (flag

State) practice relating to the treatment of MODUs or installation as ships. However, should this situation arise, it is a matter that could be resolved in a number of ways and that appears to be sufficiently addressed in the Draft Regulations on Exploitation of Mineral Resources in the Area.

121. This study found that several of the OSH and health-related provisions of the MLC, 2006 overlap with some provisions of the relevant IMO instruments. Since the MLC, 2006 applies to all seafarers, including those regulated under the IMO instruments, as a result of cooperation between the IMO and ILO, the texts of those provisions were harmonized to avoid, as much as possible, conflicting international requirements. The MLC, 2006 foresees that there may be cases where there is doubt as to whether a particular category of the ship is to be considered a ship under the MLC, 2006 and whether categories of persons working on board a ship are to be regarded as seafarers. This is a matter to be determined by the flag State concerned after consultation with the relevant representative organizations. In case of doubt with respect to whether categories of persons are to be regarded as seafarers, international tripartite guidance was adopted by ILO to assist in making such a determination. Importantly, one of the factors to be considered is whether these categories of persons are provided with protection comparable to the MLC, 2006. This means that, in the case of ships engaged in activities in the Area, if flagged in a State that has ratified the MLC, 2006, ensuring the protection, including OSH, of all personnel working on board is a matter that must be addressed by the flag State concerned.

122. It was found that the OSH provisions of the MLC, 2006 are based on ILO's OSH management approach, which refers to other international standards and may be revised to take account of changes

¹⁶² *Supra* note 13, at p. 30.

in technology and workplace risks. While there are task-, equipment- and technology-specific matters that may need to be addressed in the future in relation to activities in the Area, under an OSH management approach, many of these issues should be tackled by the shipowner/contractor engaged in activities in the Area in its OSH policy and practices.

123. This study concluded that, like the IMO instruments, the MLC, 2006 would apply to ships engaged in activities in the Area, the subject of the regulatory mandate of ISA. This would include ships carrying resources between installations in the Area. It would also apply to ships and seafarers involved in supporting activities in the Area, a matter outside the regulatory mandate of ISA. Accordingly, the MLC, 2006 can be considered a relevant treaty under Article 146 of UNCLOS.

ILO OSH instruments as relevant treaties

124. With respect to the potential application of other ILO OSH instruments, should the MLC, 2006 not be applicable under flag State legislation, this study identified the key normative ILO OSH instruments, all of which have high levels of ratification. In addition, several technical ILO instruments as well as codes of practice considered relevant to offshore oil and gas personnel, who work in a workplace that appears to have similar working and living conditions to those expected for personnel involved in activities in the Area, were noted. It was found that these instruments could possibly be relevant treaties, subject to questions of ratification and national implementation by States that are expected to be engaged in activities in the Area. However, under contemporary OSH management planning system approaches, it seems unlikely that only some personnel would be included under the ship or installation's OSH plan while others, working in the same environment,

would not be included in plans addressing, for example, ship vibration and noise, ventilation, emergency response, safety training, etc., although there may be equipment- and task-specific risks that will need to be addressed.

4.2. Potential regulatory issues

125. With respect to potential regulatory gaps, this study identified possible future issues, depending on the development of technology for exploitation in the Area, and the question of varying flag State practices regarding the application of the MLC, 2006 to MODUs and installations. At present, the type of installations that may be involved in exploitation in the Area is unknown. The MLC, 2006 does not exclude MODUs or similar drilling platforms or installations. However, the *travaux préparatoires* of the MLC, 2006 indicate that there had been a lengthy discussion and that, due to a lack of agreement and in light of the varied flag State practices, a decision had been taken not to include a proposed exclusion and to leave the MLC, 2006 silent on the matter. However, this study noted that this discussion was in the context of continental shelf oil and gas exploitation, where coastal State laws, in many cases, already regulate installations, and in particular fixed installations. This study further noted that the question of the application of the MLC, 2006 to MODUs or installations operating outside any national jurisdiction was not considered.

126. Furthermore, the study also found, as also explained in ISA Technical Study 25,¹⁶³ that the IMO instruments, including the STCW, which has a number of overlapping provisions with the MLC, 2006 in respect of seafarers' health and OSH, would apply to some categories of seafarers working on MODUs engaged in activities in the Area. In addition, there are CBAs and

¹⁶³ *Supra* note 13 at pp. 30-35, and 45.

other industry agreements and practices in place, including a CBA applying MLC, 2006 provisions to seafarers on MODUs in the offshore oil and gas sector as well as CBAs for other categories of workers, in connection with a range of offshore employment sectors.

127. In the future, depending on technological developments, the question of flag State practices in relation to MODUs and installations would benefit from further discussion and study to establish the current practices of sponsoring States and flag States involved in activities in the Area. Given the current uncertainty as to the technology to be used in exploitation, the application of IMO instruments and the varying application of the MLC, 2006 to MODUs and installations by some flag States, it is suggested that ISA continue to employ its current approach of using rules of reference in its Draft Regulations on Exploitation of Mineral Resources in the Area and rely on the development of instruments through ILO and the IMO.¹⁶⁴ In that respect, it is noted that ISA Technical Study 25 also concluded that:

"In summary, IMO standards cover many of the human safety considerations in regulating activities in the Area and will nourish the various exploration and Draft Exploitation Regulations. They are updated in response to technological change and lessons learned on a regular basis. It is efficient and makes functional sense for ISA to continue to employ rules of reference in its regulations, as it has in the Draft Exploitation Regulations, and standard clauses to IMO standards on protection of human life."¹⁶⁵

¹⁶⁴ It is noted that the Working Group at the PTMC dealing with the application to MODUs question considered the option of ILO developing an instrument to clarify these issues and the situation of offshore oil and gas workers. However, at that time, this was not seen as feasible in the short term. *Supra note 107*, para. 59.

¹⁶⁵ *Ibid.*, at p. 35.

¹⁶⁶ *Ibid.*, at p.19.

128. This is a topic that would benefit from further discussion with the IMO and ILO, noting that, at present, there is no cooperation agreement between ISA and ILO. It is noted that ILO's tripartite STC, which considers maritime labour issues especially pertaining to the MLC, 2006, has its next meeting scheduled for 2021.

129. The other issue and potential future gap that was identified in this study is, as also noted in ISA Technical Study 25,¹⁶⁶ that with the development of technology for exploitation in the Area, there are aspects of OSH that may currently fall outside of the remit of the MLC, 2006 and ILO OSH instruments. However, the OSH management approach in the MLC, 2006, which requires that shipowners adopt OSH management policies based on risk assessment and undertake regular reviews to address changing technology, risks and OSH practices may address many of these matters.

4.3. Next steps

130. It would be useful for ISA to consider entering into a cooperation agreement with ILO.

131. Depending on the development of technology for exploitation in the Area, the possible question of variations in national practice with respect to the application of the MLC, 2006 to MODUs and installations is a topic that would benefit from future discussion with the IMO and ILO.

132. With respect to possible further studies to assist ISA in moving forward in its consideration of this and other questions, the following could be considered:

- A review of the current flag States and, if not the same, sponsoring States that may be involved in exploitation in the Area and their respective convention ratifications and related national implementation practices.
- Collection of data concerning the insurance applicable to ships and installations to consider the international conventions, certifications and standards required by insurers. This would allow for an assessment of the full extent of protection for personnel that is, in fact, available to be done.

133. With respect to ISA's development of future guidelines for health and safety,

many of the OSH-related issues for personnel working with new and emerging technologies involved in mining should be addressed through the contractor's health and safety plan under the Draft Exploitation Regulations. It is noted that ILO has significant OSH expertise, and the development of any detailed guidelines should be done in cooperation with ILO to benefit from its expertise. The importance of ISA working along with the IMO to develop the safety management plan was also noted in ISA Technical Study 25. In light of the overall international maritime context and the overlap between many provisions in the MLC, 2006 and IMO instruments, it would be important to discuss this matter jointly with ILO and IMO as well as relevant non-governmental international standard-setting, industry and other organizations.



Photo: Getty Images

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APPENDICES

Appendix 1. ILO Resolution concerning information on occupational groups

Source:

Resolutions adopted by the ILC at its 94th (Maritime) Session, adopted on 22 February 2006. Available at: https://www.ilo.org/global/standards/maritime-labour-convention/WCMS_088130/lang--en/index.htm

Resolution concerning information on occupational groups¹⁶⁷

The General Conference of the [ILO],

Having adopted the [MLC, 2006],

Noting that many of the maritime instruments consolidated within the [MLC, 2006] contained different definitions of the term “seafarer”,

Considering the need for clarity over the issue of the definition in the Convention,

Recognizing that situations may arise in which a Member may have doubts as to whether or not certain categories of persons who undertake periods of work on board a ship should be regarded as seafarers for the purpose of the Convention,

Recognizing also that there is need for clarification on this subject to help to provide uniformity in the application in the rights and obligations provided by the Convention,

Noting that Article II, paragraph 1(f), of the Convention provides that:

“Seafarer means any person who is employed or engaged or works in any capacity on board a ship to which this Convention applies”

Noting also that Article II, paragraph 3, provides that:

“In the event of doubt as to whether any categories of persons are to be regarded as seafarers for the purpose of this Convention, the question shall be determined by the competent authority in each Member after consultation with the shipowners’ and seafarers’ organizations concerned with this question”.

Decides that the [ILO] should seek to ensure uniform implementation of the Convention and invites member States to maintain the intent of Article II, paragraph 1(f), through the application of Annex 1.

¹⁶⁷ Adopted on 22 February 2006.

MLC, 2006 information on occupational groups

General

The Convention recognizes in Article II, paragraph 3, that there may be doubts whether a particular category or categories of persons who may perform work on board a ship covered by the Convention should be regarded as seafarers for the purpose of the Convention.

This Annex has therefore been adopted by the General Conference of the [ILO] to assist administrations in resolving any difficulties that might arise.

There are persons who principally work onshore, but who occasionally spend a short period working on a ship. These may not be seafarers. There are persons who regularly spend a short period on a ship. These may be seafarers. In both cases, their work may or may not be directly concerned with the routine business of the ship.

Persons who might not be determined to be seafarers include harbour pilots and portworkers, as well as certain specialist staff such as guest entertainers, ship inspectors, superintendents and repair technicians.

Persons who regularly spend more than short periods aboard, even where they perform tasks that are not normally regarded as maritime tasks, may still be regarded as seafarers for the purpose of this Convention regardless of their position on board. For example, repair and maintenance squads and specialist ship staff engaged to work at sea on particular ships may well be regarded as seafarers and entitled to be covered by the rights and obligations provided for in this Convention.

The Convention provides seafarers with significant rights and benefits covering their working and living conditions that might not always be available to them in their home countries. Therefore, in resolving doubts about whether particular persons are seafarers, account should also be taken of the extent to which their national legal and social system provides protection for their labour standards comparable to that provided for under the Convention.

Categories

An administration may have doubts about designating a particular category of persons working on board as a seafarer under Article II, paragraph 1(f), because:

- (i) the nature of their work is not part of the routine business of the ship (for example, scientists, researchers, divers, specialist offshore technicians, etc.),
- (ii) although trained and qualified in maritime skills, the persons concerned perform key specialist functions that are not part of the routine business of the ship (for example, harbour pilots, inspectors or superintendents),
- (iii) the work they perform is occasional and short term, with their principal place of employment being onshore (for example, guest entertainers, repair technicians, surveyors or portworkers).

A person or category of persons should not automatically be excluded from the definition of seafarers solely on account of falling within one or more of the categories listed above. These lists are simply illustrative of situations where doubts may arise.

Special factors in the situation may lead the administration to determine when a person is or is not a seafarer.

Criteria

In considering how to resolve such doubts, the following issues should be considered:

- (i) the duration of the stay on board of the persons concerned
- (ii) the frequency of periods of work spent on board
- (iii) the location of the person's principal place of work

- (iv) the purpose of the person's work on board
- (v) the protection that would normally be available to the persons concerned with regard to their labour and social conditions to ensure they are comparable to that provided for under the Convention.



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Appendix 2. Matrix regarding UNCLOS and the interface of competencies of ISA and ILO with respect to activities in the Area

Note: Where relevant, the interface of ILO and IMO and their instruments is also noted. This matrix builds upon Matrix 3 of ISA Technical Study 25.

UNCLOS provisions	Description of competencies	CIO	Cross-references	Comments
<p><u>Article 1</u></p> <p>Use of terms and scope</p>	<p>1. "Area" means the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction</p> <p>2. "Authority" means the International Seabed Authority</p> <p>3. "Activities in the Area" means all activities of exploration for, and exploitation of, the resources of the Area</p>	<p>ISA</p> <p>ILO</p> <p>IMO</p>	<p>UNCLOS Part XI generally, <i>Annex III, Annex IV, Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area</i></p> <p><i>Regulations on Prospecting and Exploration for Cobalt-Rich Ferromanganese Crusts in the Area, Draft Regulations on Exploitation of Mineral Resources in the Area</i></p>	<p>The Seabed Advisory Opinion has impacted the definition and served to define the scope of the regulatory mandate of ISA under Part XI. "Activities in the Area" has been clarified and excludes land-based processing and transportation of minerals <i>ex situ</i>, although transport of minerals between vessels or installations related to extraction and lifting and shipboard processing in the Area are considered activities in the Area.</p>
<p>Part VII</p> <p>High Seas</p> <p><u>Article 86</u></p> <p>Application of the provisions of this Part</p>	<p>The provisions of this Part apply to all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State. [...]</p>	<p>ILO</p> <p>IMO</p>		<p>The Seabed Advisory Opinion, when considering the meaning and scope of "activities in the Area", noted the importance of avoiding potential conflict between ISA regulations with respect to the Area and UNCLOS provisions concerning navigation on the high seas.</p>

UNCLOS provisions	Description of competencies	CIO	Cross-references	Comments
<p><u>Article 94</u></p> <p>Duties of the flag State</p>	<p>1. Every State shall effectively exercise its jurisdiction and control in <i>administrative, technical and social matters</i> over ships flying its flag.</p> <p>2. In particular, every State shall:</p> <p>(b) assume jurisdiction under its internal law over each ship flying its flag and its <i>master, officers and crew in respect of administrative, technical and social matters</i> concerning the ship.</p> <p>3. Every State shall take such measures for ships flying its flag as are necessary to ensure safety at sea with regard, <i>inter alia</i>, to:</p> <p>(a) the construction, equipment and seaworthiness of ships</p> <p>(b) <i>the manning of ships, labour conditions and the training of crews, taking into account the applicable international instruments.</i></p> <p>4. Such measures shall include those necessary to ensure:</p> <p>(b) that each ship is in the charge of a master and officers who possess appropriate qualifications, particularly in seamanship, navigation, communications and marine engineering, and that the crew is appropriate in terms of qualifications and numbers for the type, size, machinery and equipment of the ship</p> <p>5. In taking the measures called for in paragraphs 3 and 4 each State is required to conform to <i>generally accepted international regulations, procedures and practices</i>, and to take any steps necessary to ensure their observance.</p>	<p>ILO</p> <p>IMO</p>	<p>MLC, 2006 and related guidance, C147 (and earlier maritime labour instruments consolidated by the MLC, 2006)</p> <p>STCW, SOLAS COLREGS and, generally, all IMO conventions, codes and guidelines</p>	<p>ILO and IMO both address issues of safety and health, including occupational safety and health (OSH) of seafarers and aspects of training of seafarers. The MLC, 2006 applies to all persons working on a ship, including the seafarers addressed by the IMO instruments (those concerned with navigation and vessel operational responsibilities). The IMO and ILO have complementary roles and have cooperated in the development of the MLC, 2006 and IMO's instruments (STCW) to avoid conflicting requirements on topics of shared concern. ILO and IMO have a long history of cooperation in respect of many other matters related mainly to safety and health and training for seafarers, and other issues such as abandonment of seafarers.</p>

UNCLOS provisions	Description of competencies	CIO	Cross-references	Comments
<p><u>Article 146</u></p> <p>Protection of human life</p>	<p>With respect to activities in the Area, necessary measures shall be taken to ensure effective protection of human life. To this end, ISA shall adopt appropriate rules, regulations and procedures to supplement existing international law as embodied in relevant treaties.</p>	<p>ISA ILO IMO</p>	<p>Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area , Regulations on Prospecting and Exploration for Cobalt-Rich Ferromanganese Crusts in the Area</p> <p>(Standard Clauses section 15), Draft Regulations on Exploitation of Mineral Resources in the Area</p> <p>MLC, 2006, and related Guidance, Guidelines for implementing the occupational safety and health provisions of the MLC, 2006, Guidelines on the training of ships' cooks, ILO/IMO Guidelines on the medical examinations of seafarers, C147</p> <p>Other ILO instruments and Guidance and Codes related to OSH including C187, C155, P155, C161 and the related recommendations and</p> <p>Guidelines on Occupational Safety and Health Management Systems (ILO-OSH 2001), Code of practice: <i>Ambient factors in the workplace</i></p>	<p>ISA's regulatory role with respect to Article 146 of UNCLOS is a supplementary power, rather than an exclusive or a primary power. This implies that the lead regulators of this subject-matter are other competent international organizations. Safety of life at sea (defined broadly to include all matters addressed by SOLAS, LLC and SARC) and seafarer training (STCW) are IMO responsibilities. Safety and health including OSH are ILO responsibilities. Many aspects of safety and health at sea are matters of overlapping ILO and IMO competence, for example, hours of rest or work, medical fitness, training, manning levels, and OSH. ISA's mandate concerns regulation for the effective protection of human life in relation to exploration and exploitation activities in the Area. To date, there appears to be ISA reliance on existing international standards through a rule of reference in the standard clauses of exploration contracts. The Draft Regulations on Exploitation of Mineral Resources in the Area anticipate reliance on ILO and IMO instruments for safety and health, including OSH for all personnel working in those activities.</p>

UNCLOS provisions	Description of competencies	CIO	Cross-references	Comments
			<p>STCW; SOLAS; ISM CODE; SAR Convention; LL Convention; SUA Convention & Protocol; and related Codes for, <i>inter alia</i>, MODUs and SPS.</p>	<p>It also applies to “seafarers”, meaning all persons working on ships to which the MLC, 2006 applies. There are no exclusions, although there may be cases of doubt which are dealt with by the MLC, 2006. Depending on the form of technology used to carry out activities in the Area, a question may arise in the future as to whether a particular flag State treats MODUs as ships under its laws, in which case the other ILO instruments for OSH could apply. In addition, IMO’s STCW and ISM Code and other instruments would still apply with respect to matters of safety, OSH, and training for certain categories of seafarers.</p>

UNCLOS provisions	Description of competencies	CIO	Cross-references	Comments
<p>Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, Regulations on Prospecting and Exploration for Cobalt-Rich Ferromanganese Crusts in the Area</p> <p>Regulation 23</p>	<p>4. The Commission shall, in accordance with the requirements set forth in these Regulations and its procedures, determine whether the proposed plan of work for exploration will:</p> <p>(a) Provide for <i>effective protection of human health and safety,</i></p>	<p>ISA ILO IMO</p>	<p>See above regarding Article 146</p>	<p>The Commission would need to consider the extent to which IMO and ILO instruments on human safety and health including OSH apply and are factored into plans of work.</p>

UNCLOS provisions	Description of competencies	CIO	Cross-references	Comments
Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, Regulations on Prospecting and Exploration for Cobalt-Rich Ferromanganese Crusts in the Area	15.1 The Contractor shall comply with the <i>generally accepted international rules and standards established by competent international organizations or general diplomatic conferences</i> concerning the safety of life at sea, and the prevention of collisions and such rules, regulations and procedures as <i>may be adopted by ISA</i> relating to safety at sea. Each vessel used for carrying out activities in the Area shall possess current valid certificates required by and issued pursuant to <i>such international rules and standards</i> . 15.2 The Contractor shall, in carrying out exploration under this contract, observe and comply with such rules, regulations and procedures as may be adopted by ISA relating to protection against <i>discrimination in employment, occupational safety and health, labour relations, social security, employment security and living conditions at the work site</i> . Such rules, regulations and procedures shall take into account <i>conventions and recommendations of the [ILO] and other competent international organizations</i> .	ISA IMO ILO	SOLAS, LL Convention, COLREGS	This rule of reference in a standard clause enables the efficient incorporation of important legal regimes relating to protection of life with a focus on safety of life at sea.
Standard Clauses			MLC, 2006 and related Guidance, C147, if not addressed in the MLC, 2006, other ILO instruments relating to these topics.	Clause 15.2. explicitly refers to ILO instruments and to a wide range of labour concerns, beyond safety and health. The MLC, 2006 addresses most of these wider labour concerns in addition to safety and health, including OSH.
Draft Regulations on Exploitation of Mineral Resources in the Area	7. These Regulations are <i>subject to the provisions of the Convention and the Agreement and other rules of international law not incompatible with the Convention</i> .	ISA	UNCLOS generally, 1994 Agreement, applicable ILO and IMO conventions	This provision sets out the legal context/ parameters of the draft Regulations. In addition to the Convention and the Agreement, the provision implicitly refers to ILO and IMO conventions that are applicable to shipping on the high seas.
Draft Regulation 1				

UNCLOS provisions	Description of competencies	CIO	Cross-references	Comments
Draft Regulations on Exploitation of Mineral Resources in the Area Draft Regulation 2	4. Provide for the protection of human life	ISA ILO IMO	See above regarding Article 146	This provision states a principle without clarifying that ISA's regulatory role on this topic is supplementary to existing international safety regulations.
Draft Regulations on Exploitation of Mineral Resources in the Area Draft Regulation 7(3)	(f) A Health and Safety Plan and a Maritime Security Plan prepared in accordance with <i>Annex VI</i> to these regulations	ISA ILO IMO	ISA <i>Annex IV</i> Plan MLC, 2006, <i>Guidelines for implementing the occupational safety and health provisions of the MLC, 2006, Guidelines on the training of ships' cooks, ILO/IMO Guidelines on the medical examinations of seafarers</i> C147, related ILO OSH instruments, C185 (for security) IMO instruments regarding safety, see above regarding Article 146 and security	<i>Annex VI</i> of the Draft Regulations on Exploitation of Mineral Resources in the Area.

UNCLOS provisions	Description of competencies	CIO	Cross-references	Comments
<p>Draft Regulations on Exploitation of Mineral Resources in the Area</p> <p>Draft Regulation 30 (Safety, labour and health standards)</p>	<p>1. The Contractor shall ensure at all times that:</p> <p>(a) All vessels and Installations operating and engaged in Exploitation activities are in good repair, in a <i>safe and sound condition and adequately manned</i>, and comply with paragraphs 2 and 3 below and</p> <p>2. The Contractor shall ensure compliance with the <i>applicable international rules and standards established by competent international organizations</i> or general diplomatic conferences concerning the safety of life at sea, the pollution of the Marine Environment by vessels, <i>the prevention of collisions at sea and the treatment of crew members</i>, as well as any rules, regulations and procedures and Standards adopted from time to time by the Council relating to these matters.</p> <p>3. In addition, Contractors shall:</p> <p>(a) Comply with the relevant national laws relating to vessel standards and <i>crew safety of their flag State in the case of vessels, or their sponsoring State or States in the case of Installations</i> and</p> <p>(b) <i>Comply with the national laws of its sponsoring State or States in relation to any matters that fall outside of the jurisdiction of the flag State, such as worker rights for non-crew members and human health and safety that pertains to the mining process rather than to ship operation.</i></p> <p>4. The Contractor shall provide copies of valid certificates required under <i>relevant international shipping conventions</i> to ISA upon request.</p> <p>5. The Contractor shall ensure that:</p> <p>(a) All of its personnel, before assuming their duties, have the necessary experience, training and qualifications and are able to conduct their duties safely, competently and in compliance with the Rules of ISA and the terms of the exploitation contract,</p>	<p>ISA</p> <p>IMO</p> <p>ILO</p>	<p>SOLAS, ISM Code, LL Convention, COLREGS</p> <p>STCW</p> <p>MLC, 2006, including, in particular: Regulation 1.1 (minimum age), Regulation 1.2 (medical certificate), Regulation 1.3 (training and qualifications)</p> <p>Regulation 2.3 (hours of work and hours of rest), Regulation 2.4 (entitlement to leave), Regulation 2.7 (manning levels), Regulation 3.1 (accommodation and recreational facilities), Regulation 3.2 (food and catering), Regulation 4.1 (medical care on board ship and ashore), Regulation 4.3 (health and safety protection and accident prevention)</p> <p>Related Guidelines and Codes and instruments they refer to (see above regarding Article 146 for a list)</p> <p>C147</p> <p>Other ILO OSH instruments (see above regarding Article 146) if in the future the MLC, 2006 does not apply to an MODU/installation under the law of a particular flag or sponsoring State</p>	<p>This draft Regulation contains rules of references to several applicable IMO conventions and codes, as well as the important MLC, 2006.</p> <p>See comments above on Article 146.</p> <p>The requirement for compliance with national maritime laws serves to emphasise the relevance of national implementation of ILO and IMO instruments.</p> <p>Re: para. 4. It is noted that the MLC, 2006 requires that ships be certified for compliance with the requirements of the MLC, 2006, including those related to health and safety, including OSH of seafarers.</p> <p>Re: para 5(b). See above regarding draft Regulation 7. This requirement for an awareness plan is included in the recommendations set out in this study.</p> <p>Re: para. 6. It is noted that the IMO's ISM Code requires a safety management plan, including OSH for certain categories of seafarers.</p>

UNCLOS provisions	Description of competencies	CIO	Cross-references	Comments
	<p>(b) An occupational health, safety and environmental awareness plan is put in place to inform all personnel engaged in Exploitation activities as to the occupational and environmental risks which may result from their work and the manner in which such risks are to be dealt with and</p> <p>(c) Records of the experience, training, and qualifications of all of its personnel are kept and made available to the Secretary-General upon request.</p> <p>6. A Contractor shall implement and maintain a safety management system taking account of the relevant Guidelines.</p>			
<p>Draft Regulations on Exploitation of Mineral Resources in the Area</p> <p>Draft Regulation 43 (Compliance with other laws and regulations)</p>	<p>1. Nothing in an exploitation contract shall relieve a Contractor from its lawful obligations under any national law to which it is subject, including the laws of a sponsoring State <i>and flag State</i>.</p>	<p>ISA ILO IMO</p>	<p>All ISA regulations and applicable ILO and IMO instruments</p>	<p>This provision underscores that international maritime rules and standards apply side-by-side to seabed mining regulation.</p>
<p>Draft Regulations on Exploitation of Mineral Resources in the Area</p> <p>Draft Regulation 95 (Issue of Guidelines)</p>	<p>1. The Commission or the Secretary-General shall, from time to time, issue Guidelines of a technical or administrative nature, taking into account the views of relevant Stakeholders. Guidelines will support the implementation of these Regulations from an administrative and technical perspective.</p> <p>2. The full text of such Guidelines shall be reported to the Council. Should the Council find that a Guideline is inconsistent with the intent and purpose of the Rules of ISA, it may request that the guideline be modified or withdrawn.</p> <p>3. The Commission or the Secretary-General shall keep under review such Guidelines in the light of improved knowledge or information.</p>	<p>ISA</p>	<p>Various international codes and guidelines (e.g., ILO and IMO instruments).</p>	<p>The MLC, 2006 Guidelines for OSH and other similar ILO Guidance, as well as the IMO's ISM Code, are potentially useful models for the issuance of guidelines by ISA.</p>



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