CONTRIBUTION OF THE INTERNATIONAL MARITIME ORGANIZATION TO THE UN SECRETARY-GENERAL’S REPORT ON OCEANS AND THE LAW OF THE SEA

PART I

PRELIMINARY CONSIDERATIONS

In accordance with the request made by the Under-Secretary-General for Legal Affairs and United Nations Legal Counsel, in a letter dated 29 May 2015, this contribution focuses on major developments on ocean issues within the areas of competence of IMO between May 2014 and June 2015 (inclusive).

In particular, this report highlights the way in which General Assembly resolution 69/245 on Oceans and the Law of the Sea has been implemented by referring to the relevant paragraphs of the resolution.

PART II

MANDATORY POLAR CODE

(paragraph 158 of UN General Assembly Resolution 69/245 refers)


The adoption of the Polar Code marks a historic milestone in the Organization’s work to protect ships and people aboard them, both seafarers and passengers, in the harsh environment of the waters surrounding the two poles. The Code, which is expected to be mandatory from 1 January 2017, covers the full range of design, construction, equipment, operational, training, and search and rescue requirements and also the prevention of pollution by oil, noxious liquid substances, sewage and garbage from ships.
MARITIME SAFETY AND SECURITY

IGC Code revised
(paragraphs 89-90 of UN General Assembly Resolution 69/245 refer)

The MSC, at its ninety-third session in May 2014, adopted the revised International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (the IGC Code) (resolution MSC.370(93)). The completely revised and updated Code has been developed following a comprehensive five-year review and is intended to take into account the latest advances in science and technology. It will enter into force on 1 January 2016, with an implementation/application date of 1 July 2016. The Code was adopted in 1983 and has been amended since; however, the new draft represents the first major revision of the IGC Code.

IGF Code adopted
(paragraphs 89-90 of UN General Assembly Resolution 69/245 refer)

The MSC, at its ninety-fifth session in June 2015, adopted the International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (IGF Code), along with amendments to make the Code mandatory under the International Convention for the Safety of Life at Sea (SOLAS), which is expected to enter into force on 1 January 2017.

As a fuel with lower sulphur and particulate emissions than fuel oil and marine diesel oil, the use of gas as fuel, particularly liquefied natural gas (LNG), has increased in recent years. However, gas and other low-flashpoint fuels pose their own set of safety challenges, which need to be adequately managed. The IGF Code aims to minimize the risk to the ship, its crew and the environment, having regard to the nature of the fuels involved. It also provides mandatory provisions for the arrangement, installation, control and monitoring of machinery, equipment and systems using low-flashpoint fuels, focusing initially on LNG.

The MSC also adopted related amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), and STCW Code, to include new mandatory minimum requirements for the training and qualifications of masters, officers, ratings and other personnel on ships subject to the IGF Code. The amendments also have an entry into force date of 1 January 2017, in line with the SOLAS amendments related to the IGF Code.

Venting cargo tanks
(paragraphs 89-90 of UN General Assembly Resolution 69/245 refer)

The MSC, at its ninety-fifth session in June 2015, adopted amendments to SOLAS regulations II-2/4.5 and II-2/11.6, clarifying the provisions related to the secondary means of venting cargo tanks in order to ensure adequate safety against over- and under-pressure in the event of a cargo tank isolation valve being damaged or inadvertently closed, and SOLAS regulation II-2/20 relating to performance of ventilation systems. The expected entry into force date is 1 January 2017.
**IMSBC Code amendments adopted**  
(Paragraphs 89-90 of UN General Assembly Resolution 69/245 refer)

Amendments to the International Maritime Solid Bulk Cargoes (IMSBC) Code were adopted by the MSC, at its ninety-fifth session in June 2015. The amendments include those intended to improve the requirements relating to the provisions for concentrates or other cargoes which may liquefy; amendments to provisions for specially constructed cargo ships for confining cargo shift; and the addition of new individual schedules such as iron ore fines.

**Safety of container ships - weight verification**  
(Paragraphs 89-90 of UN General Assembly Resolution 69/245 refer)

The MSC, at its ninety-fourth session in November 2014, adopted amendments to SOLAS chapter VI to require mandatory verification of the gross mass of containers, either by weighing the packed container or by weighing all packages and cargo items and adding the tare mass with an expected entry into force date of 1 July 2016.

**Ships’ routeing and ship reporting systems adopted**  
(Paragraph 132 of UN General Assembly Resolution 69/245 refers)

The MSC, at its ninety-third, ninety-fourth and ninety-fifth sessions in May 2014, November 2014 and June 2015 respectively, adopted the establishment of new or amendments to existing ships’ routeing systems, as well as ship reporting systems, in the following geographical areas in the world:

- The Pacific coast of Panama; the approaches to Puerto Cristobal; the Gulf of Mexico; the Strait of Gibraltar; off Friesland; the south-west Coral Sea, Great Barrier Reef and Torres Strait; the Jomard Entrance, Papua New Guinea; the Aleutian Islands; and off Chengshan Jiao Promontory.

**The BeiDou Navigation Satellite System (BDS), recognized as a component of the World-Wide Radionavigation System (WWRNS)**  
(Paragraph 133 of UN General Assembly Resolution 69/245 refers)

The MSC, at its ninety-fourth session in November 2014, recognized the BeiDou Navigation Satellite System (BDS), operated by China, as a component of the World-Wide Radionavigation System (WWRNS), in addition to the previously recognized GPS and GLONASS system.

**E-navigation strategy approved**  
(Paragraph 133 of UN General Assembly Resolution 69/245 refers)

The MSC, at its ninety-fourth session in November 2014, approved the e-navigation Strategy Implementation Plan (SIP), which provides a framework and a road map of tasks that would need to be implemented or conducted in the future to give effect to five prioritized e-navigation solutions, namely:

- improved, harmonized and user-friendly bridge design;
• means for standardized and automated reporting;
• improved reliability, resilience and integrity of bridge equipment and navigation information;
• integration and presentation of available information in graphical displays received via communication equipment; and
• improved communication of vessel traffic services (VTS) Service Portfolio (not limited to VTS stations).

A number of tasks had been identified for development and completion during the period 2015 to 2019. The MSC further approved Guidelines on Harmonization of test beds reporting, aimed at harmonizing the way the results of testbeds are reported to the Organization.

**Passenger ship safety**  
(paragraph 159 of UN General Assembly Resolution 69/245 refers)

As part of the ongoing work programme to improve passenger ship safety, the MSC, at its ninety-fifth session in June 2015, approved:

• draft amendments to SOLAS regulation II-2/13 on evacuation analysis, to extend the requirements for evacuation analysis to all passenger ships, not just ro-ro passenger ships;
• draft amendments to SOLAS regulation II-1/22 on watertight doors, to clarify when watertight doors may be opened during a voyage (applicable to all ships); and
• Guidance for watertight doors on passenger ships which may be opened during navigation.

The long-term action plan on passenger ships safety was updated, to include inclinometer measurements within all voyage data recorders; the development of more detailed assessment criteria for recognizing manning agencies and guidelines on the appropriate assignment of trained crew to emergency duties; the development of guidelines for comprehensive risk assessment, passage planning and position monitoring; and effective bridge resource management and removal of distractions.

**Piracy and armed robbery against ships**  
(paragraphs 99-126 and 129 of UN General Assembly Resolution 69/245 refer)

The MSC, at its ninety-fifth session in June 2015, reviewed the latest statistics on piracy and armed robbery against ships and discussed current initiatives to suppress piracy and armed robbery, noting that the number of worldwide piracy attacks had decreased and that no SOLAS ship had been hijacked in the western Indian Ocean area since May 2012. This is a welcome result of the robust actions taken by the international naval forces in the region, the shipboard measures implemented by shipping companies, masters and their crews, as well as the deployment of professional security teams.
The MSC approved an MSC Circular on Best Management Practices for Protection against Somalia Based Piracy, which calls on the BMP authors to amend the coordinates of the High Risk Area (HRA) in BMP 4 (promulgated as MSC.1/Circ.1339), following a proposal by Egypt to remove the Gulf of Suez and the Red Sea from the HRA definition. The circular notes that the HRA as defined in the BMP is susceptible to change based on changes in the actual threat circumstances. Currently, for the purpose of BMP, the High Risk Area is set as "an area bounded by Suez and the Strait of Hormuz to the North, 10°S and 78°E".

The MSC further approved Revised Interim recommendations for flag States regarding the use of privately contracted armed security personnel on board ships in the High Risk Area (to update MSC.1/Circ.1406/Rev.2) to recommend that Private Maritime Security Companies (PMSC) employing privately contracted armed security personnel (PCASP) on board ships hold valid accredited certification to ISO 28007-1:2015 (Ships and marine technology – Guidelines for Private Maritime Security Companies (PMSC) providing privately contracted armed security personnel (PCASP) on board ships) or meet applicable national requirements.

Following the expiration of the IMO Project Implementation Unit (PIU), the IMO Secretariat would continue to support the implementation of the Djibouti Code of Conduct. The main focus with respect to Somalia was to help develop the maritime sector through mainstream capacity-building under the auspices of the Technical Cooperation Committee (TCC), with a view to creating sustainable employment opportunities as an alternative to piracy.

The capacity-building programmes of the United Nations Office on Drugs and Crime (UNODC), supported by IMO, had made significant progress in upgrading legislation and judicial capacity in Somalia and the wider region.

**Cyber security**
(paragraphs 89-90 and 99-109 of UN General Assembly Resolution 69/245 refer)

The MSC, at its ninety-fifth session in June 2015, considered a proposal to develop voluntary guidelines on cyber security practices to protect and enhance the resiliency of cyber systems supporting the operations of ports, vessels, marine facilities and other elements of the maritime transportation system and agreed to coordinate its future work on this matter with the Facilitation Committee.

The MSC considered a number of submissions relating to cyber security, agreeing that was an important and timely issue. The MSC noted that the shipping industry round table, including the Cruise Lines Industry Association (CLIA), was developing maritime cybersecurity on board ships, to be submitted to the next Facilitation Committee (FAL 40) and MSC 96 in 2016. The Committee requested Member States and international organizations to collaborate on proposals for guidance on maritime cybersecurity and submit them to the next session (MSC 96).
Unsafe mixed migration by sea  
(paragraphs 127-130 and 144-150 of UN General Assembly Resolution 69/245 refer)

A High-level Meeting to Address Unsafe Mixed Migration by Sea was hosted by IMO on 4-5 March 2015 to discuss concerted ways to address the high numbers of lives being lost at sea in unsafe craft, particularly in the Mediterranean Sea, on dangerous and unregulated sea passages. The aim of the meeting was to facilitate dialogue and promote enhanced cooperation and harmonization between United Nations agencies, international organizations, non-governmental organizations, Governments and the shipping industry.

Following the High-level meeting, the Legal Committee, at its 102nd session in April 2015, considered the issue of unsafe mixed migration by sea. The Committee decided to continue an intersessional discussion on the study of the current legal regime and gaps that needed to be addressed in order to remedy the drastic situation concerning migrants at sea.

In June 2015 the MSC, agreed to place "Unsafe mixed migration by sea" as an agenda item on the work programme of the Committee. The Committee recognised that urgent action was needed to prevent huge losses of life at sea given the forecast increase in unsafe mixed migration by sea, and stressed the need for the international community to make greater efforts to address unsafe migration through more safe and regular migration pathways, and taking action against criminal smugglers.

The MSC forwarded to the Facilitation Committee a proposal for a revised reporting format regarding the joint databases on migrant incidents and on suspected smugglers and vessels being developed by IMO, the International Organization for Migration (IOM) and the United Nations Office on Drugs and Crime (UNODC).

Search and Rescue (SAR)  
(paragraph 146 of UN General Assembly Resolution 69/245 refers)

Regional activities have been organised to encourage, in particular, developing countries to become parties to the 1979 SAR Convention, to establish/improve SAR services, as well as building up co-operation amongst countries in Asia, Pacific, Central America and African countries bordering the Indian and Atlantic Oceans. As far as possible, activities have been implemented in co-operation with the International Civil Aviation Organization (ICAO) in order to promote the harmonization of aeronautical and maritime search and rescue.
Goal-based standards
(paragraph 157 of UN General Assembly Resolution 69/245 refers)

The MSC, at its ninety-fifth session in June 2015, approved a work plan for continued work on goal-based standards safety level approach (GBS-SLA), over the next three sessions. Progress was also made during the session on developing the draft Interim guidelines for the application of the goal based standards safety-level approach.

The MSC approved the MSC.1/Circ.1394/Rev.1 on the Generic guidelines for developing IMO goal-based standards. The revised generic guidelines specify structure and contents of functional requirements to be used in goal-based standards as well as examples thereof in the appendix. The guidelines also describe the process for the development, verification, and implementation and monitoring of goal-based standards (GBS) to support regulatory development within IMO. GBS are defined as high-level standards and procedures that are to be met through regulations, rules and standards for ships. GBS are comprised of at least one goal, functional requirement(s) associated with that goal, and verification of conformity that rules/regulations meet the functional requirements including goals.

MARINE ENVIRONMENT

Ballast water management status and technologies reviewed
(paragraphs 173-175 of UN General Assembly Resolution 69/245 refer)

The Marine Environment Protection Committee (MEPC), at its sixty-eighth session in May 2015, reviewed the status of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention), 2004, which is close to receiving sufficient ratifications to meet the remaining entry into force criterion (tonnage). The number of Contracting Governments is currently 44, representing 32.86% of the world’s merchant fleet tonnage. The BWM Convention will enter into force 12 months after the date on which not fewer than 30 States, the combined merchant fleets of which constitute not less than 35% of the world’s gross tonnage, have ratified it.

The MEPC followed-up on the resolution on Measures to be taken to facilitate entry into force of the BWM Convention, adopted at the previous session, also including the agreed review of the Guidelines for approval of ballast water management systems (G8) (a Correspondence Group was re-established to continue working on the review).

A “Roadmap for the implementation of the BWM Convention” was agreed, which emphasises that early movers, i.e. ships which install ballast water management systems approved in accordance with the current Guidelines (G8), should not be penalized.

The MEPC also developed draft amendments to regulation B-3 of the BWM Convention to reflect Assembly resolution A.1088(28) on application of the Convention, with a view to approval at its next session (scheduled for April 2016) and consideration for adoption once the treaty enters into force. The draft amendments would provide an appropriate timeline for ships to comply with the ballast water performance standard set out in regulation D-2 of the Convention.
Further ballast water management systems that make use of active substances were granted Basic Approval (five systems) and Final Approval (one system), following consideration of the reports of the 30th and 31st meetings of the Joint Group of Experts on the Scientific Aspects of Marine Environment Protection (GESAMP) Ballast Water Working Group. In this regard, the Committee also noted that it had to date been officially notified of a total of 57 ballast water management systems that have received type approval from the respective Administrations.

**Extension of Great Barrier Reef and Torres Strait PSSA** *(paragraph 229 of UN General Assembly Resolution 69/245 refers)*

The MEPC, at its sixty-eighth session in May 2015, adopted a resolution to extend the eastern limit of the current Great Barrier Reef and Torres Strait Particularly Sensitive Sea Area (PSSA) to encompass the south-west part of the Coral Sea, part of Australia’s Coral Sea Commonwealth Marine Reserve (CMR), a remote ocean ecosystem which provides refuge for a wide range of threatened, migratory and commercially valuable species.

The MSC adopted associated protective measures in the form of new ship routeing, aimed at protecting sensitive areas in the south-west Coral Sea off Australia, linked to a proposed extension of the Great Barrier Reef and Torres Strait Particularly Sensitive Sea Area (PSSA). See here above under *Ships’ routeing*.

**Revised air pollution guidance and requirements** *(paragraph 186 of UN General Assembly Resolution 69/245 refers)*

The MEPC, at its sixty-eighth session in May 2015, considered a number of amendments and revisions to existing guidance and requirements related to air pollution measures and in particular:

- adopted the 2015 Guidelines for exhaust gas cleaning systems (resolution MEPC.259(68)). The amendments relate to certain aspects of emission testing, regarding measurements of carbon dioxide (CO2) and sulphur dioxide (SO2), clarification of the washwater discharge pH limit testing criteria and the inclusion of a calculation-based methodology for verification as an alternative to the use of actual measurements;

- approved, for adoption at MEPC 69, draft amendments to the NOX Technical Code 2008 to facilitate the testing of gas-fuelled engines and dual fuel engines for NOx Tier III strategy;

- approved, for adoption at MEPC 69, draft amendments to MARPOL Annex VI regarding record requirements for operational compliance with NOX Tier III emission control areas; and

- adopted, by resolution MEPC.260(68), amendments to the 2011 Guidelines addressing additional aspects to the NOX Technical Code 2008 with regard to particular requirements related to marine diesel engines fitted with Selective Catalytic Reduction (SCR) Systems (resolution MEPC.198(62)).
The Committee also agreed, for consistency and safety reasons, to proceed with the development of guidelines for the sampling and verification of fuel oil used on board ships.

**Third IMO GHG Study 2014**  
*(paragraph 188 of UN General Assembly Resolution 69/245 refers)*

The MEPC, at its sixty-seventh session in October 2014, approved the Third IMO GHG Study 2014 providing updated estimates for greenhouse gas emissions from ships.

The Third IMO GHG Study 2014 estimates that international shipping emitted 796 million tonnes of carbon dioxide (CO2) in 2012, against 885 million tonnes in 2007. This represented 2.2% of the global emissions of CO2 in 2012, against 2.8% in 2007.

However, the “business as usual” scenarios indicate that those emissions are likely to grow by between 50% and 250% in the period to 2050, depending on future economic and energy developments.

**Energy-efficiency guidelines and energy-efficiency measures for ships**  
*(paragraph 188 of UN General Assembly Resolution 69/245 refers)*

The MEPC, at its sixty-eighth session in May 2015, continued its work on developing guidelines to assist in the implementation of the mandatory energy-efficiency regulations for international shipping and, to this end, it adopted:

- amendments to update the 2014 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI) and endorsed their application from 1 September 2015, at the same time encouraging earlier application;

- amendments to the 2013 Interim Guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions, for the level-1 minimum power lines assessment for bulk carriers and tankers, and agreed on a phase-in period of six months for the application of the amendments; and

- amendments to update the 2014 Guidelines on the method of calculation of the attained EEDI for new ships.

The MEPC also agreed text for its further development as the full language for the data collection system for fuel consumption of ships, which can be readily used for voluntary or mandatory application of the system.

The proposed text refers to collecting data regarding ships of 5,000 GT and above, to include the ship identification number, technical characteristics, total annual fuel consumption by fuel type and in metric tons and transport work and/or proxy data yet to be defined. The methodology for collecting the data would be outlined in the ship specific Ship Energy Efficiency Management Plan (SEEMP).

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Data would be aggregated into an annual figure and reported by the shipowner/operator to the Administration (flag State) which would submit the data to IMO for inclusion in a database. Access to the database would be restricted to Member States only and data provided to Member States would be anonymized to the extent that the identification of a specific ship would not be possible.

**Oil spill response guidance approved**  
(paragraph 209 of UN General Assembly Resolution 69/245 refers)

The MEPC, at its sixty-eight session in May 2015, approved two sets of guidelines to assist in oil spill response:

- Guidelines on international offers of assistance in response to a marine oil pollution incident – intended as a tool to assist in managing requests for spill response resources and offers for assistance from other countries and organizations when confronted with large, complex or significant oil spill incidents.

- Guidelines for the use of dispersants for combating oil pollution at sea - Part III (Operational and technical sheets for surface application of dispersants). Parts I (Basic information) and II (National policy) of the IMO Dispersant Guidelines have already been approved and will be published together with Part III. Part IV, covering sub-sea dispersant application, is under development and will take into account the experience gained from the Deepwater Horizon incident as well as other related technical developments.

**Transboundary pollution damage**  
(paragraph 208 of the UN General Assembly Resolution 69/245 refers)

The Intersessional Consultative Group (ICG), established by the Legal Committee in 2014, will continue developing Guidance for bilateral and regional agreements on liability and compensation issues connected with transboundary pollution damage resulting from offshore exploration and exploitation activities. Member States were invited to send examples of existing bilateral and regional agreements to the Secretariat.

**IMPLEMENTATION OF IMO INSTRUMENTS**

**Mandatory IMO audit scheme**  
(paragraph 157 of UN General Assembly Resolution 69/245 refers)

The audit of all Member States will become mandatory from 1 January 2016, to determine the extent to which they give full and complete effect to their obligations and responsibilities contained in a number of IMO treaty instruments. The mandatory IMO instruments included in the scope of the Scheme cover safety of life at sea (SOLAS 1974 and its 1988 Protocol); prevention of pollution from ships (MARPOL); standards of training, certification and watchkeeping for seafarers (STCW 1978); load lines (LL 66 and its 1988 Protocol); tonnage measurement of ships (Tonnage 1969); and regulations for preventing collisions at sea (COLREG 1972).
Implementation of Guidelines on fair treatment encouraged
(paragraph 93 of UN General Assembly Resolution 69/245 refers)

The Legal Committee, in April 2015, encouraged Member States, who had not yet done so, to give effect to the 2006 Guidelines on fair treatment of seafarers in the event of a maritime accident, adopted jointly by IMO and the International Labour Organization (ILO).

The Committee concluded that further consideration was needed regarding the progressive removal of legislation targeting seafarers and imposing criminal sanctions on them. It was also highlighted that seafarers should be given greater training and awareness of their rights.

Promotion of the 2010 HNS Convention
(paragraph 210 of UN General Assembly Resolution 69/245 refers)

The Legal Committee also encouraged Member States to ratify and bring into force, as soon as possible, the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 2010 (2010 HNS Convention). The HNS Correspondence Group was formally re-established, with a mandate to continue its work as a forum for exchange of information and to provide guidance and assistance on issues regarding the implementation and operation of the Convention.

CAPACITY BUILDING
(paragraph 31 of UN General Assembly Resolution 69/245 refers)

As part of IMO’s capacity-building efforts, a regular meeting of the Heads of Maritime Administrations commenced during the period under review. The aim is to establish a forum for the sharing of ideas amongst Heads of Maritime Administrations and as well encouraging the early ratification of the relevant IMO instruments.

In addition, IMO participated actively in the creation of the African Union 2050 Africa Integrated Maritime Strategy (2050 AIM Strategy) which is an overarching broad framework for the protection and sustainable exploitation of the Africa’s Maritime Domain for wealth creation. Consequently, the 24th Summit of the African Union has declared 25 July of every year as Africa’s day of the Seas and Oceans and to be celebrated with conferences, seminars and workshops on maritime issues. This year’s event will also mark the Kick-off of the Decade of African Seas and Oceans (2015-2025)!

LONDON CONVENTION AND PROTOCOL
(paragraphs 187 and 195-198 of UN General Assembly Resolution 69/245 refer)

Marine geoengineering guidance

Guidance for consideration of marine geoengineering activities was agreed by the Parties to the London Protocol, meeting at their 9th session held in November 2014. The guidance aims at
assisting Contracting Parties to the London Protocol in considering whether and, if so, in what form and context, marine geoengineering activities of potential concern should be addressed.

The Meeting also agreed the arrangements for establishing a roster of international independent experts, intended to provide Parties with experts capable of advising on assessing marine geoengineering activities listed under annex 4 to the London Protocol, following amendments to the London Protocol which were adopted in 2013. Those amendments will enter into force 60 days after two thirds of the Contracting Parties have deposited an instrument of acceptance of the amendment with IMO. No acceptances have been received to date.

Currently the only such activity listed under marine geoengineering is “ocean fertilization”, defined as any activity undertaken by humans with the principal intention of stimulating primary productivity in the oceans. An ocean fertilization activity may only be considered for a permit if it is assessed as constituting legitimate scientific research taking into account any specific placement assessment framework.

**25-year scientific review of all radioactive wastes and other radioactive matter**

(paragraphs 139-140 of the UN General Assembly Resolution 69/245 refer)

The Meeting established a correspondence group to develop a work plan regarding the scientific study relating to all radioactive wastes and other radioactive matter other than high level wastes or matter, required every 25 years under the London Convention and Protocol in order to review the prohibition on dumping of such substances.

It was agreed that a step by step assessment approach could be employed, in order to determine the type and level of review that would be needed to fulfil the requirements of the Convention/Protocol. This could include, inter alia, a literature review focusing on the period after 1993 (including the highly relevant recent International Atomic Energy Agency (IAEA) reports), and a review of the 1993 Intergovernmental Panel of Experts on Radioactive Waste (IGPRAD) report (LC/IGPRAD 6/5) which was the result of a seven-year study focusing on the wider political, legal, economic and social aspects of radioactive waste dumping at sea; the issue of comparative land-based options and the costs and risks associated with these options; and the question of whether it can be proven that dumping of radioactive wastes and other radioactive matter will not harm human life and/or cause significant harm to the marine environment.

The dumping of radioactive wastes was prohibited under amendments to the London Convention adopted in 1993 and incorporated into the London Protocol in 1996. Both the London Convention and Protocol allow for the dumping of certain permitted materials provided such wastes do not contain levels of radioactivity greater than de minimis (exempt) concentrations as defined by the IAEA. The scientific review is required to be undertaken within 25 years of 20 February 1994 (date of entry into force of the 1993 LC amendments), and at each 25 year interval thereafter.

**Marine disposal of mine tailings**

An international workshop on mine tailings disposal was held in Lima, Peru, in June 2015, under the auspices of the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), supported by the Parties to the London Convention and Protocol.
The aim of the workshop was primarily to increase the scientific understanding of the impact of the disposal of mine tailings at sea on the marine environment.

An IMO commissioned 2012 report noted that a total of 15 mines (i.e., 0.6%) out of approximately 2,500 large scale mines world-wide used marine or riverine disposal for mine tailings, under Government permits, and that a number of mines around the world are in the early stages of development, some of which are considering marine disposal as one of the options for disposal of mine tailings.