iMélange

August 2023

Special Coverage
MEPC 80

Monthly Magazine of The Institute of Marine Engineers (India)

UPDATE ON IME (I) ELECTIONS FOR TERM 2023-25 FOR GOVERNING COUNCIL, BRANCH & CHAPTER COMMITTEES

- Election process of The Institute of Marine Engineers (India) for the term 2023-25 by e-voting is on-going.
- **The e-voting commenced from 15 July and shall continue until 17:00 Hrs. on 31 August 2023 for the post of Vice-President only.**
- All other posts in the Head office (Governing Council), Branches and Chapters were uncontested.
- Corporate Members should have received by now the email from our e-voting service provider CDSL, with the login credential of the Member's ID and Password to enable them to vote online. Corporate Members, who have not yet received the login credential from CDSL, are requested to contact directly the undersigned by email at **electionofficer@imare.in** with copy to **administration@imare.in.**
- Counting of e-votes will take place at **10:00 Hrs, on 02 September 2023** at IME(I) House, Nerul. Corporate Members, desiring to witness the counting, are to inform the undersigned with copy to the Administration by email latest by 17:00 Hrs. on Wednesday, the 23rd August 2023.

Election Officer

The Institute of Marine Engineers (India)

IME (I) House

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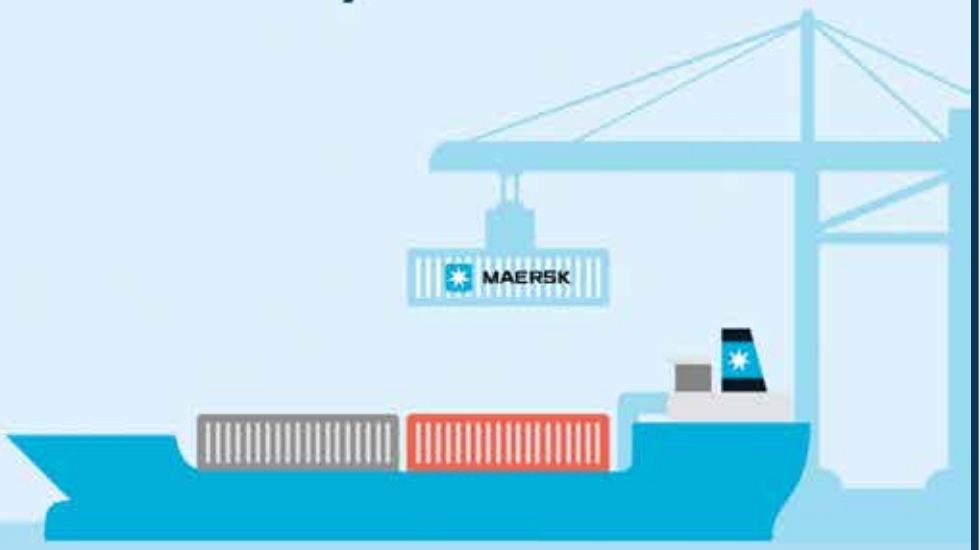

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MAERSK

From the Editor's Desk

Dear Esteemed Readers,

Welcome to the vibrant pages of iMélange's August edition, where we bring you a kaleidoscope of insights and updates from the maritime world. As we navigate the currents of the industry's latest happenings, we're thrilled to share with you a multitude of noteworthy events and captivating articles that promise to enrich your maritime knowledge.

We commence this edition with an enlightening information note by Shri. Shyam Jagannathan, (IAS), Director General Shipping, Ministry of Ports, Shipping and Waterways, Government of India. This note was presented at the Seminar on the Outcome of MEPC 80, a symposium convened by the Institute of Marine Engineers (India) Mumbai Branch on 29th July 2023 in collaboration with Directorate General of Shipping (DGS). This seminar provided an avenue to delve into the outcomes and deliberations of the 80th Marine Environment Protection Committee Meeting (MEPC 80). Held at the IMO headquarters in London from 3rd July to 7th July 2023, MEPC 80 saw global stakeholders steering discussions towards safeguarding our marine ecosystems.

In the maritime realm, all eyes are on the happenings at the International Maritime Organization (IMO), and this edition certainly keeps you well-informed. We present the highlights of IMO's 129th Council Session, a pivotal gathering held from 17th July to 21st July 2023. The Indian delegation, led by Mr. Vikram K Doraiswamy, High Commissioner of India to the UK, along with Mr. Ramachandran Krishnamoorthy Thanalapathy, Secretary to the Government of India, Ministry of Shipping, and esteemed personalities such as Mr. Sujit Ghosh, Deputy High Commissioner, High Commission of India, London, and Mr. Shyam Jagannathan, Director General of Shipping, Directorate General of Shipping, spearheaded discussions to steer global maritime governance.

Within these pages, you'll discover a compelling article titled "Black Carbon: A Pollutant, Impacts & Control Measures." Authored by curious minds, this insightful piece unravels the layers of black carbon's environmental footprint. As the maritime industry grapples with sustainability challenges, this article spotlights the pressing need to address the impact of black carbon emissions and offers promising strategies for control.

In the words of Robert Louis Stevenson, "To travel hopefully is a better thing than to arrive." Let us journey together, equipped with knowledge, wisdom, and a shared commitment to navigate the maritime challenges and opportunities that lie ahead.

As we sail through this edition, we encourage you, our cherished readers, to immerse yourselves in the stories, insights, and dialogues that unfold within these pages. And as always, we extend an open invitation for your contributions—be it travelogues, articles, photographs, or your thoughts on the maritime industry's journey. Your participation not only enriches our publication but also fosters a community that thrives on shared knowledge and dynamic exchanges.

So, dear readers, let your creative energies flow and channel your inputs to editornewsletter@imare.in by 7th Sept 2023, to be a part of our upcoming September '23 issue.

Thank you for your steadfast support. We trust that this edition of iMélange will leave you enlightened and inspired.

Best regards

SUNIL KUMAR
Honorary Editor – iMélange

Information note by Shri Shyam Jagannathan, (IAS), Director General Shipping, Ministry of Ports, Shipping and Waterways, Government of India on the occasion of Seminar on Outcome of MEPC 80 convened by the Institute of Marine Engineers (India), Mumbai Branch on the 29th of July 2023.

At the outset I congratulate the Institute of Marine Engineers (India), Mumbai Branch for taking the initiative to hold a seminar on the outcome of the MEPC 80 - the 80th Marine Environment Protection Committee Meeting held at the International Maritime Organisation headquarters, London, from the 3rd of July to the 7th of July 2023. Forums such as these facilitated by the Institute of Marine Engineers (India) disseminate the significance of global strategies which emanate from multilateral forum of the International Maritime Organisation and their impact and outcomes on the critical sector of Shipping in India and the world. I regret my inability to participate physically at this Seminar due to the mandates of public office necessitating my presence in another significant forum and extend our sincere appreciation to the Institute of Marine Engineer (India), Mumbai Branch.

INTRODUCTION

Shipping is the life blood of the global economy. Shipping's ability to transport goods cheaply, in large volumes and with the minimum environmental footprint is unmatched by any other mode of transportation. Around 80% of the international trade in goods is carried by sea. The importance of maritime trade has been underscored in recent times by the Covid Pandemic which disrupted supply chains and shipping networks. The trade loss due to delays in cargo shipments, higher shipping costs and lower maritime connectivity lead to higher inflation and shortage of food and adversely impact the world economy. Maritime Transport is a critical infrastructure for the economic development of a country. It influences the pace, structure and pattern of development.

The Maritime sector in India comprises Ports, Shipping, Ship Building, Ship Repair and Inland Water Systems. India has a long coastline of about 7,500 kilometers spread on the western and eastern shelves of the mainland and also along the islands with 12 government- owned major ports and approximately 200 minor and intermediate ports doffing the coastline. Around 95% of the country's trade by volume and 68% by value is moved through Maritime Transport. India is also endowed with 14500 kilometers of inland waterways in the form of rivers, canals, backwaters and creeks. The geographical location of India is at the centre of the Indian Ocean which is the epicenter of economic activity due to key international trade routes which give strategic advantage to India. Shipping is therefore a vital part of the Indian economy. As Hon'ble Prime Minister Shri Narendra Modi ji has summed it up succinctly, the blue chakra or wheel in India's national flag represents the potential of Blue Revolution or the Ocean Economy and that is how central the Ocean Economy is to India.

NOTE OF APPRECIATION

We remain indebted to the Indian delegation that participated in the 80th Marine Environment Protection Meeting (MEPC-80) led by Shri Ajithkumar Sukumaran, Chief Surveyor, Directorate General of Shipping, Shri Vikrant Rai, Engineer and Ship Surveyor, Directorate General of Shipping and Government delegates and stakeholder participation by Indian National Ship Owners Association (INSA), Institute of Marine Engineers, Indian Register of Shipping, Maritime Association of Shipowners, Ship managers and Agents (MASSA) and Institute of Naval Architecture.

AGENDA of the MEPC (80)

The Agenda items deliberated upon related to

a) Reduction of GHG Emissions from Ships
b) Energy Efficiency of Ships
c) Air Pollution Prevention
d) Harmful aquatic organisms in ballast water
e) Consideration and adoption of amendments to mandatory instruments
f) Follow-up work emanating from the Action Plan to address marine plastic litter from ships
g) Pollution prevention and
h) response Reports of other sub-committees

OUTCOMES

1. The 2023 IMO Strategy on Reduction of GHG Emissions from Ships, with improved targets to tackle emissions, was agreed by the International Maritime Organisation (IMO). The revised IMO GHG Strategy includes an enhanced common ambition to reach net-zero GHG emissions from international shipping close to 2050, a commitment to ensure an uptake of alternative zero and near-zero GHG fuels by 2030, as well as indicative check-points for 2030 and 2040.

   Mr. Kittack Lim, Secretary General of IMO stated *"With the Revised Strategy that you have now agreed on, we have a clear direction, a common vision, and ambitious targets to guide us to deliver what the world expects from us."*

   Levels of ambition directing the 2023 IMO GHG Strategy are as follows:

Carbon intensity of the ship to decline through further improvement of the energy efficiency for new ships

To review with the aim of strengthening the energy efficiency design requirements for ships;

Carbon intensity of international shipping to decline

To reduce CO2 emissions per transport work, as an average across international shipping, by at least 40% by 2030, compared to 2008;

Uptake of zero or near-zero GHG emission technologies, fuels and/or energy sources to increase

Uptake of zero or near-zero GHG emission technologies, fuels and/or energy sources to represent at least 5%, striving for 10%, of the energy used by international shipping by 2030;and

GHG emissions from international shipping to reach net zero

To peak GHG emissions from international shipping as soon as possible and to reach net-zero GHG emissions by or around, i.e. close to 2050, taking into account different national circumstances, whilst pursuing efforts towards phasing them out as called for in the Vision consistent with the long-term temperature goal set out in Article 2 of the Paris Agreement.

Indicative checkpoints

Indicative checkpoints to reach net-zero GHG emissions from international shipping:

- To reduce the total annual GHG emissions from international shipping by at least 20%, striving for 30%, by 2030, compared to 2008; and
- To reduce the total annual GHG emissions from international shipping by at least 70%, striving for 80%, by 2040, compared to 2008.

Basket of candidate mid-term GHG reduction measures

The 2023 GHG Strategy states that a basket of candidate measure(s), delivering on the reduction targets, should be developed and finalized comprised of both:

- A technical element, namely a goal-based marine fuel standard regulating the phased reduction of the marine fuel's GHG intensity; and
- An economic element, on the basis of a maritime GHG emissions pricing mechanism.

The candidate economic elements will be assessed observing specific criteria to be considered in the comprehensive impact assessment, with a view to facilitating the finalization of the basket of measures. The mid-term GHG reduction measures should effectively promote the energy transition of shipping and provide the world fleet a needed incentive while contributing to a level playing field and a just and equitable transition.

Impacts on States

The strategy says that the impacts on States of a measure/combination of measures should be assessed and taken into account, as appropriate before adoption of the measure in accordance with the Revised procedure for assessing impacts on States of candidate measures. Particular attention should be paid to the needs of developing countries, especially SIDS and LDCs.

Barriers and supportive actions; capacity-building and technical cooperation; R&D

In the Strategy, the Committee recognizes that developing countries, in particular LDCs and SIDS, have special needs with regard to capacity-building and technical cooperation. An appendix provides an overview of relevant IMO initiatives supporting the reduction of GHG emissions from ships.

The Secretary General emphasized stating *"I believe that we have to pay more attention to support developing countries, in particular SIDS and LDCs, so that no one is left behind."*

2. Life Cycle GHG Assessment Guidelines Adopted

MEPC 80 adopted the "Guidelines on Life Cycle GHG Intensity of Marine Fuels" (LCA Guidelines), which set out methods for calculating well-to-wake and tank-to-wake GHG emissions for all fuels and other energy carriers (e.g. electricity) used on board a ship. These guidelines

also specify sustainability topics/aspects for marine fuels and define a Fuel Lifecycle Label (FLL) that collects and conveys the information relevant for the life cycle assessment. Preliminary default emissions factors for various fuels and fuel pathways are provided, but these factors will be further reviewed.

These guidelines do not include any provision for application or requirements; they are intended to support the GHG Fuel Standard under development. The IMO guidelines will be kept under review and developed further in the coming years, in particular focusing on default emissions factors, sustainability criteria, fuel certification and handling of on-board carbon capture.

3. Interim guidance on the use of biofuels

The MEPC approved an MEPC circular on Interim guidance on the use of biofuels under regulations 26, 27 and 28 of MARPOL Annex VI (DCS and CII).MEPC 80 agreed on a circular providing a common approach to account for the use of biofuels under Regulations 26, 27 and 28 of MARPOL Annex VI (DCS and CII). Biofuels that have been certified by an international certification scheme (referring to schemes approved for international aviation), meeting its sustainability criteria, and that provide a well-to- wake GHG emissions reduction of at least 65% compared to the well-to-wake emissions of fossil MGO, can use a CO2 conversion factor equal to the well-to-wake GHG emissions factor. The approach should be considered temporary until the regulations can apply the methods in the LCA guidelines.

4. Energy Efficiency Design Index (EEDI)

MEPC 80 agreed on a correction of the comparison of tank sizes for dual fuel engines in the EEDI survey and certification guidelines. For gas fuel, the reference to “tank filling” is replaced by a reference to “tank loading limit in the IGF and/or IGC Codes”.

The application of the concept of overridable shaft/ engine power limitation (ShaPoLi/EPL) under the EEDI framework was discussed. There was no agreement on how it should be applied, although it was agreed that an overridable solution would require adjustments in the NOx Technical Code.

Reporting of the use of the power reserve for ShaPoLi/ EPL systems in the EEXI framework

MEPC 80 adopted the revised “Guidelines on the Shaft/Engine Power Limitation System to Comply with the EEXI Requirements and Use of a Power Reserve” setting out uniform reporting requirements, and a format for reporting on the use of a power reserve to the administration.

- Review of the Energy Efficiency Existing Ships Index (EEXI) and Carbon Intensity Indicator (CII)

MEPC 80 agreed on a plan for reviewing the short-term GHG reduction measures, the CII and EEXI. The plan stipulates a data-gathering phase until MEPC 82 in autumn 2024, before analysing the data and finalizing any amendments to the measures by MEPC 83 in summer 2025. This includes CII reduction requirements from 2026 to 2030 aligned with the carbon intensity target in the revised IMO GHG Strategy. There will be no immediate changes to the CII framework, including correction factors and voyage adjustments, before the review is completed by the end of 2025.

- Revision of the Data Collection System (DCS)

MEPC 80 approved amendments to Appendix IX of MARPOL Annex VI, adding further data elements to be reported through the DCS, such as fuel consumption per fuel type and energy consumer and transport work. The amendments also include changes to the accessibility of data in Regulation 27, where data can be made available for consultants contracted by the IMO under a strict confidentiality agreement. Ship companies can now also opt to make the DCS data submitted to the IMO publicly available.

5. Air Pollution

- **Gas fuels and low-flashpoint fuels**

MEPC 80 approved amendments to MARPOL Annex VI clarifying the definition of fuel oil and defining gas fuels consistent with the IGF Code. The amendments also state that all fuels require a bunker delivery note, but gas fuels and low-flashpoint fuels are not required

to provide information on density, sulphur content and flashpoint, and are also not required to provide a sampling point.

➢ **Marine diesel engines replacing steam systems**

MEPC 80 approved amendments to Regulation 13.2.2 of MARPOL Annex VI accepting that marine diesel engines replacing steam systems, as "replacement engines" if complying with the requirements introduced for steam systems with respect to non-identical replacement engines, are not required to meet the Tier III limit. The related Unified Interpretation was updated as a consequence of these amendments.

➢ **Thermal waste treatment devices**

Recognizing the need for alternative methods to comply with the standards set forth in Regulation 16 of MARPOL Annex VI on shipboard incineration, MEPC 80 adopted the "Guidelines for Thermal Waste Treatment Devices". The guidelines are technology-neutral and goal-based, and may be applied to any thermal waste treatment device using, for example, gasification, hydrothermal carbonization, pyrolysis or plasma, or other thermal means for the disposal of waste generated on board, as an alternative to conventional incinerators.

6. Adoption of Amendments to Mandatory Instruments

MEPC 80 adopted amendments to the Ballast Water Management Convention concerning the form of the Ballast Water Record Book. The aim is to improve the recording and provide clarity on information concerning ballast water operations that would be recorded by ships.

The amendments will enter into force on 1 February 2025.

➢ **Harmful aquatic organisms in ballast water**

➢ **experience building phase**

The Convention Review Plan, under the experience-building phase associated with the Ballast Water Management (BWM) Convention, was approved. A Correspondence Group will continue the work on the review

➢ **Ballast water record book**

MEPC 80 approved the circular "Guidance on matters relating to ballast water record-keeping and reporting". The Committee further adopted the resolution "Guidance for the Use of Electronic Record Books under the BWM Convention" and approved consequent amendments to Regulations A-1 and B-2, and the MEPC resolutions of Regulations G4 and G6 of the Convention.

➢ **Ships operating in challenging water quality**

MEPC 80 did not manage to complete the guidance on the application of the BWM Convention to ships operating in challenging water quality, as substantial concerns and divergent views remained. Work will continue towards MEPC 81 in April 2024. However, it was expressed that due to the lack of guidelines and the urgency of having instructions for these situations, some administrations may develop their own national policies for operation in challenging water qualities and start the implementation early.

➢ **Biofouling**

MEPC 80 adopted the revised "Guidelines for the Control and Management of Ship's Biofouling to Minimize the Transfer of Invasive Aquatic Species". The guidelines provide recommendations on in-water inspections with a focus on the quantitative assessment of biofouling using a biofouling rating number, as well as on observations of the anti-fouling system condition.

➢ **Ballast water monitoring devices**

MEPC 80 approved a BWM.2 circular on the protocol for verification of ballast water compliance monitoring devices.

7. Unified Interpretations

MEPC 80 approved a Unified Interpretation to Regulations 18.5 and 18.6 of MARPOL Annex VI that the Bunker Delivery Note (BDN) is acceptable in either a hard copy or electronic format.

The development of the measures will continue at the IMO and will, according to the agreed timeline, be adopted in 2025 and enter into force in around mid-2027.

8. On-board CO_2 Capture

MEPC 80 considered initiating a work process on the application of on-board carbon capture and storage or utilization, but decided to postpone further discussion on this matter to the next intersessional meeting of the Working Group on GHG reductions. This is expected to take place the week before MEPC 81 in April 2024, and to be linked to the further work on the LCA guidelines.

9. Marine Plastic Litter

To better manage fishing operations contributing to marine plastic litter and improve the daily routines for the handling of fishing gear on board fishing vessels, a proposal for requiring a ship-specific plan for the on-board management of fishing gear gained general support. It was decided to instruct PPR to further consider the proposal and advise on the way forward.

10. Identification and Protection of Special Areas and Particular Sensitive Sea Areas (PSSAs)

MEPC 80 agreed that:

- The Red Sea and the Gulf of Aden special areas under MARPOL Annex I (Oil) take effect from 1 January 2025
- The Red Sea special area under MARPOL Annex V (Garbage) takes effect from 1 January 2025
- A new PSSA in the North-Western Mediterranean Sea bordering France, Italy, Monaco and Spain, to

protect whales from international shipping, is to be designated

11. Other Matters

Underwater radiated noise (URN)

MEPC 80 adopted the revised "Guidelines for the Reduction of Underwater Radiated Noise from Shipping to Address Adverse Impacts on Marine Life". The purpose is to provide an overview of approaches applicable to designers, shipbuilders and ship operators to reduce the URN of any given ship and to assist relevant stakeholders in establishing mechanisms and programmes through which noise reduction efforts can be realized.

12. Ship Recycling

MEPC 80 adopted the revised "Guidelines for the Development of the Inventory of Hazardous Materials" as a consequence of the controls on cybutryne included in the Anti-fouling Convention.

13. Work Programme

MEPC 80 agreed to new outputs to the work programme as follows:

- A new output to amend the 2017 guidelines addressing additional aspects of the NOx Technical Code 2008 with regard to particular requirements related to marine diesel engines fitted with Selective Catalytic Reduction (SCR)
- A new output to amend the NOx Technical Code 2008 to revise the process for retrofitting existing engines on board.

Indian perspective and continued engagement

The moot submission is that in the revised IMO Strategy (2023-28) has just been adopted by the Committee.

1. Most of the views from India have been accommodated in the document.
   - **(i)** The principle of Common but Differentiated Responsibilities and respective capabilities (CBDRRC) recognizing the historical emission contributions of the countries and the differences in the economic and technical capacities between them to address the climate related issues have been incorporated in the guiding principles of the document itself.
   - **(ii)** The challenges that developing countries may face in the implementation of the 2023 IMO GHG Strategy have been acknowledged in the document along with the human element, including the impact on seafarers in the safe implementation of the Strategy.
   - **(iii)** Particular focus on the capacity building in developing countries and the need of technical cooperation and technology sharing have been incorporated
2. Regarding ambitions the word 'by and around' 2050 has been included at the strong request from developed countries, but, with clear precondition that it will be taking into account 'national circumstances' as was demanded from our end. This aligns with ICAO statement.
3. Regarding mid-term measures like levy, all the proposals have been taken on board at this state and will undergo detailed Comprehensive Impact Assessment (CIA) under the monitoring of a Steering Committee to be constituted by the IMO, with equal participation of developing & developed countries.
4. The interim Circular guideline to encourage uptake of Biofuel has been approved by the Committee, as proposed by India, despite reservations from few countries like US.
5. In addition, of the 8 documents submitted by India on various technical matters, four of them have found the way forward and the others will continue to be under deliberations in the coming sessions.

SPECIFIC SUBMISSIONS AND WAY AHEAD

The technical and policy proposals from India at MEPC 80 can be summed up as below:

(1) 2023 Revised GHG Reduction Strategy:

India's had made first the following submission on the revision of GHG Strategy on following

aspects of revision of GHG strategy which has found a place in the revised strategy:

- **i.** India's positions regarding differentiated responsibilities of Countries, need of to address barriers to States and the need of technology sharing with developing countries and human element including seafarer training have been explicitly incorporated in the new Strategy Document. (MEPC 80/7/14).
- **ii.** 5% by energy content by 2030 should be occupied by low or zero carbon fuels: MEPC 79/7/8 (Further consideration of concrete proposals on the revision of the Initial IMO GHG Strategy, and initiation of the development of a Revised Strategy) by India.
- **iii.** The Strategy should aim for net zero emissions rather than zero emissions: This allows for fuels such as biofuels, methanol etc. as future fuels: India submission in this regard: MEPC 78/7/4 (Revision of the Initial IMO GHG Strategy) by India.
- **iv.** Net Zero target date should taken into account national circumstances: India intervention attached to MEPC 78 Report.
- **v.** Thrust on Capacity Building in the Revised Strategy: Explicit acknowledgement to have provision of financial and technological resources and capacity-building to implement

the Revised Strategy finding a place in the revised strategy: India submission MEPC 80/7/14: Comments on documents MEPC 80/WP.6 and MEPC 80/INF.10.

(2) Guidance on biofuel carbon factor for Immediate usage of biofuels by existing ships:

Acceptance of guidance on carbon factor for biofuels will pave the way for old Indian ships to comply with operational carbon intensity requirements without any retrofitting. The Indian submissions related to this aspect are:

i. MEPC 80/7/9: Draft MEPC resolution on biofuel that is certified by international certification scheme to conform to the sustainability aspects in the LCA guidelines being assigned a CO2 emission conversion factor (CF) as zero to facilitate the uptake of biofuels and the reduction of GHG emissions: By India cosponsored by Norway, Liberia, IPECA, ICS & CLIA. ii. MEPC 79/7/18: Uptake of biofuel - emission factor by India.

ii. MEPC 79/7/18: Uptake of biofuel - emission factor by India

iii. MEPC 78/5: Proposal for development of interim guidelines for the usage of biofuel from crops and waste biomass blends by India.

iv. MEPC 76/7/32: Trials of NOx compliance for existing engines using biofuel blends.

(3) E-Record Books and Bunker Delivery Note:

The thust on digitization in India has ensured that Indian bunker suppliers are issuing E- BDN and further India vide its following submission ensured that E-BDN is acceptable and along with that other records related to other conventions are also permitted to be e- recorded. India's submissions in this regard are:

i. MEPC 79/4/9: Proposal for an amendment to the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004.

ii. MEPC 79/4/10: Proposal for a guideline for the use of electronic record books under the Ballast Water Management Convention along the lines of resolution MEPC.312 (74).

iii. PPR 10/14/3: Comments on issuance of electronic bunker delivery notes (E-BDN) by bunker suppliers.

(4) Prevention of Port State Inspection Deficiencies: India has placed a number of submissions to prevent port state deficiencies related to Ballast Water Convention and new short term GHG reduction measures. India's submission have been transposed as it is to various resolution/guidance etc.:

i. MEPC 80/4/5: Draft guidance for completing the Ballast Water Record Book by India and cosponsored by Canada, Singapore, Netherlands and Intertanko.

ii. MEPC 80/6: Proposed amendments to paragraphs 3.2 and 3.4 to the 2021 Guidelines on the shaft/engine power limitation system to comply with the EEXI requirements and use of a power reserve (resolution MEPC.335(76)) by India.

iii. MEPC 79/4/4: Proposal on revised form of Ballast Water Record Book (BWRB)

iv. MEPC 79/4/5: Proposal on issuance of a circular giving guidance for filling the Ballast Water Record Book (BWRB)

WAY AHEAD

In light of the Adoption of 2023 revised Strategy for GHG reduction from Ships

Immediate steps are

(i) Ensure representation of India in the Steering CommiFee for the proposed Impact Assessment on states and identify and nominate expert from India in the committee overseeing the Comprehensive Impact Assessment (CIA) being undertaken by UNCTAD.

(ii) Undertake own Impact Assessment through a reputed professional agency and submit India's proposals for economic measures in MEPC-81.

(iii) Ensure proactive participation in all Technical Cooperation Programmes from IMO.

(iv) New IMO Strategy will see more ships requiring green fuel bunkering in India. To achieve immediate reductions of carbon intensity, foreign ships shall be demanding biofuels and shore power supply. Ensure supply chains for biofuel (standards, manufacturing, certification etc.) and earliest supply of shore power to existing ships.

(v) Disseminate LCA guidelines to fuel manufacturers and work with them to achieve required reductions.

(vi) Nomination in Correspondence group on LCA guidelines deciding on default carbon factors.

Policy Initiatives:

(vii) To develop a Comprehensive Green Shipping Policy for India.

(viii) DGS Circular 04 of 2023: Collection of data from all Indian Ships irrespective of size for Implementation of EEXI, CII, Single Use of Plastics, and issuance of E-BDN by Bunker Suppliers.

(ix) (vii) DGS Circular 18 of 2022: Use of Biofuel and its Blend as fuel on board Indian Flagged Ships

Medium Term to Long Term

(i) To develop Strategy to achieve 20% absolute reduction from coastal shipping.

(ii) Anticipate future fuelled ships and develop production and bunkering facilities for these

fuels in Indian ports for Indian and foreign ships and ensure a Certification mechanism in accordance with Lifecycle Assessment Guidelines are available. It is anticipated that Container ships shall be first to transit to alternate fuels and container ports may be taken on board for such development.

(iii) Policy to discourage poor rated ships from operating in Indian coast.

(iv) Develop safety guidelines for storage and bunkering of alternate fuels.

(v) Explore opportunities for partnership projects with lead maritime countries.

(vi) In anticipation of large number of phasing out of ships due to green

Related to Ballast Water Convention

Immediate

(i) Accede to the BWM Convention. This will enable Indian PSC inspector to ensure compliance and prevent risk to Indian waters.

(ii) Request NIOT to carry out a risk assessment of Indian coast enabling coastal ships to be granted exemption from fitment of a Ballast Water Management System.

(iii) Nomination in correspondence group on Convention review.

Long Term

Explore possibility of manufacturing a Ballast Water Treatment System in India. Encourage Indian yards to equip themselves for retrofitting of BWT systems on Indian ships.

Related to E- Record Books

Immediate

(i) Issue circular to allow usage by Indian Ships

Long Term

Disseminate information so that such record books are developed in India and enforced on all Indian Ships to procure India developed E- Record books are developed in India to procure India developed e- record books.

SPECIFIC SUBMISSIONS AND WAY AHEAD

The technical and policy proposals from India at MEPC 80 can be summed up as below:

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India's had made first the following submission on the revision of GHG Strategy on following aspects of revision of GHG strategy which has found a place in the revised strategy:

i. India's positions regarding differentiated responsibilities of Countries, need of to address barriers to States and the need of technology sharing with developing countries and human element including seafarer training have been explicitly incorporated in the new Strategy Document. (MEPC 80/7/14).

ii. 5% by energy content by 2030 should be occupied by low or zero carbon fuels: MEPC 79/7/8 (Further consideration of concrete proposals on the revision of the Initial IMO GHG Strategy, and initiation of the development of a Revised Strategy) by India.

iii. The Strategy should aim for net zero emissions rather than zero emissions: This allows for fuels such as biofuels, methanol etc. as future fuels: India submission in this regard: MEPC 78/7/4 (Revision of the Initial IMO GHG Strategy) by India.

iv. Net Zero target date should taken into account national circumstances: India intervention attached to MEPC 78 Report.

v. Thrust on Capacity Building in the Revised Strategy: Explicit acknowledgement to have provision of financial and technological resources and capacity-building to implement the Revised Strategy finding a place in the revised strategy: India submission MEPC 80/7/14: Comments on documents MEPC 80/WP.6 and MEPC 80/INF.10.

(2) Guidance on biofuel carbon factor for Immediate usage of biofuels by existing ships:

Acceptance of guidance on carbon factor for biofuels will pave the way for old Indian ships to comply with operational carbon intensity requirements without any retrofitting. The Indian submissions related to this aspect are:

i. MEPC 80/7/9: Draft MEPC resolution on biofuel that is certified by international certification scheme to conform to the sustainability aspects in the LCA guidelines being assigned a CO2 emission conversion factor (CF) as zero to facilitate the uptake of biofuels and the reduction of GHG emissions: By India cosponsored by Norway, Liberia, IPECA, ICS & CLIA.

ii. MEPC 79/7/18: Uptake of biofuel - emission factor by India

iii. MEPC 78/5: Proposal for development of interim guidelines for the usage of biofuel from crops and waste biomass blends by India.

iv. MEPC 76/7/32: Trials of NOx compliance for existing engines using biofuel blends.

(3) E-Record Books and Bunker Delivery Note:

The thrust on digitalization in India has ensured that Indian bunker suppliers are issuing E- BDN and further India vide its following submission ensured that E-BDN is acceptable and along with that other records related to other conventions are also permitted to be e- recorded. India's submissions in this regard are:

i. MEPC 79/4/9: Proposal for an amendment to the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004.

ii. MEPC 79/4/10: Proposal for a guideline for the use of electronic record books under the Ballast Water Management Convention along the lines of resolution MEPC.312(74).

iii. PPR 10/14/3: Comments on issuance of electronic bunker delivery notes (E-BDN) by bunker suppliers.

(4) Prevention of Port State Inspection Deficiencies:

India has placed a number of submissions to prevent port state deficiencies related to Ballast Water Convention and new short term GHG reduction measures. India's submission have been transposed as it is to various resolution/guidance etc.:

i. MEPC 80/4/5: Draft guidance for completing the Ballast Water Record Book by India and cosponsored by Canada, Singapore, Netherlands and Intertanko.

ii. MEPC 80/6: Proposed amendments to paragraphs 3.2 and 3.4 to the 2021 Guidelines on the shaft/ engine power limitation system to comply with the EEXI requirements and use of a power reserve (resolution MEPC.335(76)) by India.

iii. MEPC 79/4/4: Proposal on revised form of Ballast Water Record Book (BWRB)

iv. MEPC 79/4/5: Proposal on issuance of a circular giving guidance for filling the Ballast Water Record Book (BWRB)

Papers Submissions by India

i. MEPC 80/4/5: Draft guidance for completing the Ballast Water Record Book

ii. MEPC 80/4/6: Challenges in complying with the BWM Convention requirements for existing ships operating in ports with challenging water quality (PCWQ).

iii. MEPC 80/4/20: Comments on the proposed temporary guidance on the application of the BWM Convention to ships operating in challenging water quality

iv. MEPC 80/INF. 13: Information on the result of a survey on quality and quantity of fuel oil bunkered at Indian ports from licensed bunker suppliers.

v. MEPC 80/5/2: Proposal for interim guidelines for the use of biofuels and blends of biofuels as fuels.

vi. MEPC 80/6: Proposed amendments to paragraphs 3.2 and 3.4 to the 2021 Guidelines on the shaft/engine power limitation system to comply with the EEXI requirements and use of a power reserve (resolution MEPC.335(76)).

vii. MEPC 80/6/5: Consideration of specific cases for application of the correction factors as provided in resolution MEPC.355(78) on the 2022 Interim Guidelines on correction factors and voyage adjustments for CII calculations (CII Guidelines, G5).

viii. MEPC 80/6/6: Proposed amendments to regulation 19.3 of MARPOL Annex VI to clarify nonapplicability of requirements of regulation 26.3 of MARPOL Annex VI for category A ships as defined in the Polar Code.

ix. MEPC 80/INF. 32: Policy action on Inclusion of carbon capture system from ship's engine exhaust.

x. MEPC 80/7/9: Draft MEPC resolution on biofuel that is certified by international certification scheme to conform to the sustainability aspects in the LCA guidelines being assigned a CO2 emission conversion factor (CF) as zero to facilitate the uptake of biofuels and the reduction of GHG emissions.

xi. MEPC 80/7/14: Comments on documents MEPC 80/WP.6 and MEPC 80/INF.10.

[P.S.: The note relies on the Report of the Marine Environment Protection Committee Meeting submitted by Shri Ajithkumar Sukumaran, Chief Surveyor, Directorate General of Shipping and Shri Vikrant Rai, Engineer and Ship Surveyor, Directorate General of Shipping who participated in the MEPC 80 as Government Delegates on behalf of India]

Seminar on the Outcome of MEPC 80

The Institute of Marine Engineers (India), Mumbai Branch, in association with the Director General of Shipping, organised a seminar on **"The Outcome of MEPC 80"**. The seminar took place in hybrid mode (offline & online) on **29th July 2023** at **Indian Register of Shipping, Mumbai.** The 80th session of the IMO's Marine Environmental Protection Committee, "MEPC 80," took place from 3rd to 7th July 2023 at IMO, London.

Shri. Sunil Kumar, Head - Technical Sub-Committee, IME(I), Mumbai Branch, delivered the opening remarks. He emphasised that the main objective of the event was to keep all stakeholders informed about the discussions and deliberations held during MEPC 80. Shri. Kumar highlighted that IME(I) has a longstanding tradition of sharing the outcomes of significant events at IMO, like MEPC 80, in collaboration with the Director General of Shipping. This approach ensures that the maritime community is kept well-informed about the industry's evolving developments.

Shri. David Birwadkar, Vice-Chairman, IME(I) Mumbai Branch, cordially greeted the dignitaries on the dais, including **Shri. Arun Sharma**, Executive Chairman, IRS, who graced the occasion as the Chief Guest. He also extended a warm welcome to **Shri. Ajithkumar Sukumaran**, Chief Surveyor (Engg.) cum Additional Director General, DG Shipping, Govt. of India who delivered the keynote address. Mr. Birwadkar further conveyed his heartfelt regards to all the esteemed guests in the auditorium and those participating in the seminar online. Regrettably, **Shri. Shyam Jagannathan (IAS)**, Director General of Shipping, couldn't grace the occasion as the Chief Guest due to a meeting with the Shipping Ministry. Subsequently, in the absence of Shri. Jagannathan, Shri. Birwadkar proceeded to read out the message that was shared by him in front of the audience. Afterwards, Shri. Birwadkar expressed his gratitude to Shri. Arun Sharma for graciously accepting the role of Chief

Guest on short notice and for being a guiding light to the maritime industry. He then invited Shri. Arun Sharma to address the esteemed gathering.

During his address to the gathering, Shri. Sharma began by extending his heartfelt congratulations to the organising committee and expressing his appreciation to the DG Shipping. He highlighted India's significant participation in IMO and MEPC Conventions over the past three decades. Shri. Sharma emphasised that the maritime industry has undergone numerous transformations in recent years, including the Ballast Water Management Convention, Sulphur Cap regulations, and now addressing GHG emissions. He stressed the industry's readiness to embrace further technological changes in the next quarter century. Shri. Sharma also elaborated on how the MEPC 80 session adopted the 2023 IMO Strategy on Reducing GHG Emissions from Ships, which includes enhanced targets to tackle the harmful emissions effectively. Additionally, he mentioned the impact of the COVID-19 pandemic on the marine sector, where international trade declined by 9 per cent in 2020, resulting in huge loss of jobs.

During his captivating speech, Shri. Sharma highlighted that the new regulations offer India a chance to venture into novel design configurations, cutting-edge technological advancements, innovative information technology solutions, and modern management practices that will profoundly influence the future.

Following that, Shri. Sunil Kumar cordially invited Shri. Sukumaran to deliver a comprehensive overview and set the stage for the upcoming presentations on the results of MEPC 80.

Shri. Sukumaran extended his warm greetings to all the esteemed dignitaries present at the event. He expressed heartfelt appreciation to Director General of Shipping, for granting him the opportunity to lead the Indian delegation, and he extended his gratitude to all the members of the shadow committee also who worked tirelessly behind the scenes, contributing to the success of the endeavour. During his speech, Shri. Sukumaran emphasised the significant role played by India during the MEPC 80. He acknowledged that while there might have been differing opinions among participants, India's undeniable importance and influence in the proceedings couldn't be overlooked. Shri. Sukumaran then proceeded to provide a comprehensive overview of the meticulous preparations that took place in the run-up to the MEPC, demonstrating the level of commitment and dedication invested in the process. Furthermore, Shri. Sukumaran took the time to address several frequently asked questions, ensuring that any doubts or concerns were clarified, thus fostering a better understanding of India's stance and contributions to the discussions. His informative and engaging presentation set the stage for a constructive and productive series of deliberations during the event.

Following that, Shri. Kumar extended a cordial invitation to **Shri. Anil Devli,** the President of INSA, to step forward and address the gathering. Shri. Devli began by extending warm greetings and heartfelt congratulations to the committee members and esteemed dignitaries for their remarkable and influential participation in the IMO and MEPC 80 convention. In his speech, Shri. Devli focused on two critical issues that warranted attention. Firstly, he highlighted the pressing need for a mechanism through which the government can provide financial support to the sector. He emphasised that obtaining funds from financial institutions poses a significant

challenge, and a dedicated government-funded approach could play a pivotal role in overcoming this obstacle and fostering the growth of the sector. Secondly, Shri. Devli stressed the importance of establishing a mechanism that enables India to receive monetary assistance from other countries. Such assistance could prove instrumental in bolstering the country's maritime capabilities, fostering collaboration among nations, and promoting sustainable development within the sector. His call for effective solutions and international cooperation resonated with the audience, setting the stage for further discussions and potential actions to address these pertinent issues.

Shri. S. M. Rai, Member - Technical Sub-Committee IME(I), who also served as the session's moderator, commenced the panel discussion by inviting the esteemed panelists to the stage. In a gracious introduction, he presented the panelists, including **Shri. I.N. Bose, Shri. CPK Kashyap, Shri. N Girish,** and **Shri. M Prasad**, who engaged in a stimulating dialogue on the topic "GHG Emission & Revised Strategies". Following the enriching first session, Shri. Rai extended his invitation to the next set of experts for the second session. **Shri. Rajeev Nayyer, Shri. Mahesh Subramanian,** and **Shri. S. Sanatani** joined the stage to delve into an insightful discussion on the subject of "Ballast & Challenging Water Management". Concluding the series of engaging discussions, the third session featured the expertise of **Shri. J. Dasgupta, Shri. T.K. Sahu, Shri. D. Kabi**, and **Shri. B. Venkat**. They came together for a compelling panel discussion centered on "Pollution Prevention & Other Issues".

These thought-provoking panel discussions facilitated the exchange of knowledge and perspectives among industry experts, paving the way for informed decisions and progress within the maritime community.

Shri. Rai proceeded to extend a warm invitation to **Shri. Vikrant Rai**, Engineer & Ship Surveyor-cum-Deputy DG (Tech), DG Shipping, Govt. of India, to address the attentive audience. Expressing gratitude to all key contributors involved in the IMO and MEPC Convention, Shri. Vikrant Rai initiated his speech. During his address, Shri. Vikrant Rai placed emphasis on two pivotal aspects of MEPC 80: the revised GHG Strategy and Ballast Water Management. The revised GHG strategy sets ambitious targets aimed at significantly reducing GHG emissions from international shipping. These targets include a 20% reduction in emissions by 2030, a substantial 70% reduction by 2040 (relative to 2008 levels), and a long-term objective of achieving net-zero emissions by 2050. Anticipated to come into effect around mid-2027, the new regulations will play a crucial role in shaping the industry's environmental impact. Furthermore, Shri. Vikrant Rai acknowledged and highlighted the insightful papers presented by India during the convention, contributing to the collective knowledge and progress within the maritime sector. The exchange of ideas and expertise among nations serves to foster meaningful advancements and promote sustainable practices in the shipping industry.

Concluding the session, Shri. Birwadkar presented mementoes to all the esteemed panelists as a token of appreciation for their valuable contributions.

In conclusion, **Shri. Sanjeev Mehra,** Hon. Secretary, IME(I) Mumbai Branch, extended heartfelt appreciation on behalf of IME(I) and conveyed sincere gratitude to all attendees. A special vote of thanks was also extended, with a special acknowledgment to IRS for graciously providing the excellent venue.

GLIMPSES OF THE EVENT










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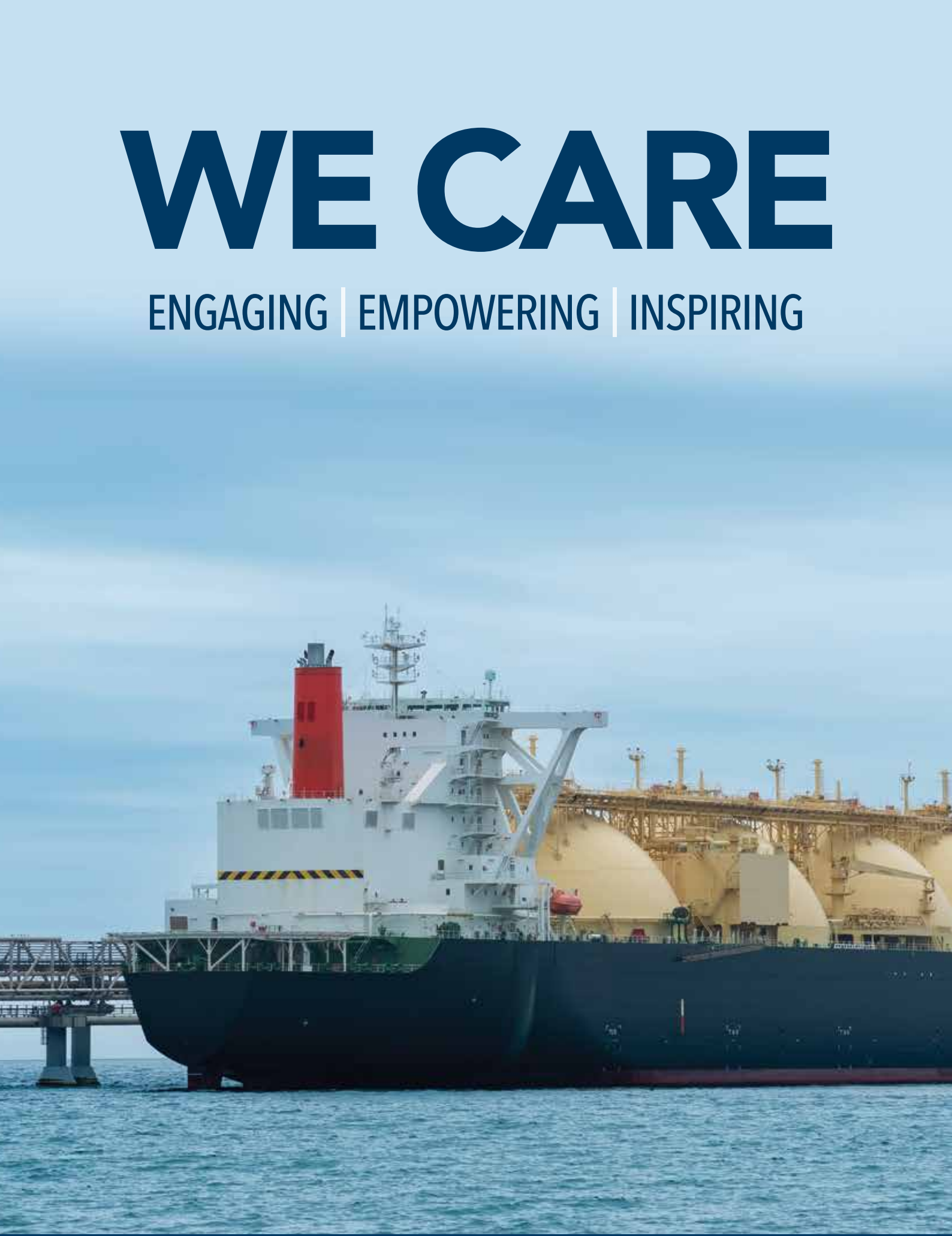

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IMO Update

Indian Delegation Attended 129th Session of the Council of International Maritime Organization (IMO) on 17.07.23 – 21.07.23 at IMO, London

The 129th session of the Council was held from 17.07.23 to 21.07.23 at IMO Headquarters, London. The session was chaired by **Mr. Victor Jiménez** of Spain. The session was attended by Indian delegation comprising the following officers;

1. **Shri T.K Ramachandran**, IAS, Secretary, MoPSW, GoI.- Leader of the Delegation
2. **Shri Shyam Jagannathan,** IAS, Director General of Shipping, GoI.
3. **Capt. Anish Joseph,** Deputy Nautical Advisor
4. **Capt. Daniel Joseph**, Nautical Surveyor.
5. **Mr. Ash Mohomad,** Deputy Director General of Shipping.
6. **Shri Rajiv Pratap Rao,** Representative of Indian Register of Shipping

Indian Delegation led by Shri T.K. Ramchandran, IAS, Secy, MoPSW, GoI in the Plenary Hall at IMO

Indian delegation pays tribute to father of the nation Mahatma Gandhi at IMO Hqs

The delegation made very active engagements during the session.

Day One (Monday, 17.07.23):

(a) Intervention on Criminalization of seafarers:

Shri T.K Ramachandran, IAS, Secretary, MoPSW, GoI heading the Indian delegation made an intervention on criminalization of seafarers at the very beginning of the session at the time when the agenda for the session was being adopted.

India's submission against Criminalization of Seafarers was supported by Bangladesh and Philippines and the International Transport Worker's Federation (ITF). It was also appreciated by the chair and the Secretary General, IMO. It has been reflected at Para 1.4 of summary of decision of the Council.

The Secretary General's made an observation that it is an important agenda for the legal committee. Indian delegate to engage with the legal committee to strengthen the processes for seafarers and to lead in necessary forums to convene a conference to evolve methodologies to support seafarers in the coming conference.

Shri T.K Ramachandran, IAS, Secretary, MoPSW, GoI and head of Indian Delegation making an intervention at IMO

(b) Intervention for agenda C.129/4(a) –Report of ISWG on the Strategic Plan.

Shri T.K Ramachandran, IAS, Secretary, MoPSW, GoI heading the Indian delegation made an intervention on this agenda item highlighting that performance

indicators may be incorporated as a part of Strategic Direction (SD)1 as below;

i. Number of developing countries, including SIDs/ LDCs, funded for shore

power supply/digitization/infrastructure for alternative fuels as well as other

measures to ensure implementation of IMO instruments

ii. Amount of investment made in developing countries including SIDs/LDCs for the above.

The Council decided to establish a working group on the Strategic Plan during C 129 (current session) to draft Strategic Plan for six years 2024-29 and to consider developing performance indicators.

This s reflected at Para 4(a).1 to Para 4(a).4 of the summary of the decisions of the Council.

(c) Intervention for agenda C.129/4(a)/3:

Shri T.K Ramachandran, IAS, Secretary, MoPSW, GoI heading the Indian delegation made an intervention on the above Paper which was submitted by India in the Council. India submitted proposal to include one continuous output on digitisation that can be accepted as SD2 integrating new and advancing technologies in the regulatory framework. India's paper proposed that "Digitization of all certifications required under all IMO conventions as well as all commercial maritime documents in joint collaboration with the relevant international organizations and industry" Submissions were made by UK/ UAE/ Philippines/ USA/ Sweden/ Japan/ Singapore/ Germany/ Spain/ Netherlands, Norway, Canada, Finland. The Council invited the committees, in particular MSC, MEPC, LEG and FAL, to consider this proposal, as the work that would be undertaken under this output mainly falls under their remit. This is reflected at Para 4(a).8 of the summary of the decisions of the Council.

(d) Participation of Panel Discussion organized by Bangladesh Secretary on their accession of Hong Kong Ship Recycling Convention:

Shri T.K Ramachandran, IAS, Secretary, MoPSW, GoI heading the Indian delegation participated as Panelist in the discussion organized by the Bangladesh Delegation on its accession to the Hong Kong convention.

Shri T.K Ramachandran, IAS, Secretary, MoPSW, GoI and Head of Indian Delegation taking part in the Panel discussion organized by Bangladesh on Hong Kong Ship Recycling Convention

Shri T.K Ramachandran, IAS, Secretary, MoPSW, GoI and Head of Indian delegation speaking as a Panelist

(e) Interaction with Indonesian Delegates on the M.T Aashi issue and the detention of 3 Indian seafarers.

Indian delegation met with the delegation of Indonesia and discussed the issues in release of 03 Indian seafarers who were working on foreign flag vessel MT Aashi. In second meeting at the IMO the P&I club was also invited for discussion. It was decided to have more meetings after IMO session to resolve the issue.

(f) Interaction with Jose Matheickal, Director, Department of Partnership and Projects, IMO:

The delegation met and interacted with Mr. Jose Matheickal, Director, Department of Partnership and Projects of the IMO. The three specific engagements were discussed (a) Green Hydrogen and upscaling engagement in GHG reduction strategies in India via-a-vis IMO (b) Reduction in Marine pollution in consultation with Commissioner of Fisheries, Government of India in the Ministry of Fishery Development. The MoPSW is to extend support to the initiative and (c) Building on the proposal for establishing a Centre of. Indian engagement on the aspects of Economic Measures vis a vis carbon reduction were discussed.

Indian delegation meeting Mr. Jose Matheickal, Director, Department of Projects and Partnership, IMO

Other points discussed in another meeting held on 21.07.23 were as below;

1. Progress in IMO's GloLitter (Marine Plastic Project) in which India's DG shipping and Fisheries Administration are taking shared responsibilities. The overall project progress so far and the potential need for looking at a different cooperation modality with

India and also to see if the project should focus on shipping in context of MARPOL Annex V and port reception facilities etc. This would allow us to discuss a better cooperation arrangement with IMO and to ensure the originally committed deliverables when selected as a lead country to join the project can be delivered within the project time-frame.

2. Progress of Green Voyage Project and ways and means of strengthening our cooperation including exploration of opportunities for cooperation between IMO's MTCCs and any newly established maritime centres of excellence in India. Continued cooperation with India under the extended phase of Green Voyage which IMO is negotiating with Norway.

3. Exploration of ways and means of strengthening IMO-India cooperation, especially considering the decarbonization and digitalization trends.

4. Preparation for the Port Training workshop being scheduled in October in Mumbai jointly with IMO.

Mr. Jose also agreed and participated in the inaugural session (31st July in India–United Kingdom Joint Workshop on Maritime Security: Crisis Management, conducted by DG Shipping In partnership with DFT, UK from 31st July – 3rd August 2023 at Mumbai.

(g) Interaction with Finland's candidate for the post of Secretary General, IMO:

The Part of the delegation with the Director General of Shipping, GoI and Capt. Daniel Joseph, NS along with Dr. Lily Gunasekaran, First Secretary, High Commission of India, met the delegation of Finland as was requested by that delegation. Finland delegation requested for support of India for election of Finland Candidate for the post of Secretary General of IMO.

(h) Reception of Secretary General (Mr. Kittack Lim) of IMO:

The delegation attended the reception hosted by the Secretary General of IMO at IMO, Hqs. The delegation interacted with the Secretary General on general shipping issues specially issues of seafarers.

Shri T.K Ramachandran, IAS, Secretary, MoPSW, GoI and Head of Indian delegation interacting with Secretary General of IMO

(i) Reception of Turkish delegation:

Three members of the delegation Capt. Anish Joseph, Dy NA Shri Ash Mohomad, DDG, and Capt. Daniel, NS attend the reception hosted by Turkish delegation on account of their candidature (Capt. Suat H Aka) for the post of IMO Secretary General.

Indian Delegation with senior member of Turkish delegation at IMO

Day 2 (Tuesday 18.07.23):

(a) Election of Secretary General of IMO:

Shri T.K Ramachandran, IAS, Secretary, MoPSW, GoI and Head of Indian delegation casting vote of India for election of new Secretary General of IMO

The nominees from 07 IMO Member States, as below were the filed

1. Mr. Moin Uddin **Ahmed**—Bangladesh
2. Mr. Suat Hayri **Aka**—Turkey
3. Mr. Arsenio Antonio **Dominguez Velasco**—Panama
4. Dr. Cleopatra **Doumbia-Henry**—Dominica
5. Mrs. Nancy **Karigithu**—Kenya
6. Ms. Minna **Kivimäki**—Finland
7. Mr. Xiaojie **Zhang**—China

Election process and Result:

Bangladesh withdrew its candidature by an announcement made by its High Commissioner at the Floor of the IMO. The election by secret ballot for remaining 06 candidates was conducted. There were eliminations rounds and no candidate could secure

majority (21 votes out of 40 members Council). Mr. Arsenio Antonio Dominguez Velasco, nominee of Panama was declared as winner in fourth and final round securing 21 votes. Turkey got 11 votes followed by Finland with 8 votes.

The election result will be submitted to the Assembly session scheduled in Nov-Dec, 2023. The new Secretary General of IMO will take charge w.e.f. 01.01.2024.

Shri T.K. Ramachandran, IAS, Secretary, MoPSW, GoI and head of the Indian delegation congratulating Mr. Arsenio Dominguez as designate Secretary General, IMO after winning election.

Indian delegation with new Secretary General designate, IMO

(b) Working Group (WG) on Strategy Planning:

The WG was constituted by the Council which sat in Room No. 10 under the chairmanship of Mr. Darrick Leow (Singapore). Capt. Anish Joseph, Dy Nautical Advisor took part in the deliberations of the WG.

The Council noted the progress made by the Group on the development of the first draft of the Strategic Plan for the six-year period 2024 to 2029. The Council agreed, in principle, on the draft Strategic Plan for the six-year period 2024 to 2029 consisting of the mission statement, vision statement, overarching principles and strategic directions 1 to 8.

The following SD's were agreed;

SD-1 Improve implementation of IMO instruments supported by capacity development

SD-2 Integrate new, emerging and advancing technologies in the regulatory framework

SD-3 Respond to climate change and reduce greenhouse gas emissions from international shipping

SD-4 Continue to engage in ocean governance

SD-5 Enhance global facilitation, supply chain resilience and security of international trade

SD-6 Address the human element

SD-7 Ensure regulatory effectiveness of international shipping

SD-8 Ensure organizational effectiveness

The Council also agreed, in principle, on the inclusion of the performance indicators (PIs), as reflected in the table of performance indicators, taking into account that the Working Group did not finalize their consideration on performance indicators. The Council also encouraged Member States to actively complete and submit information

reports to GISIS. The WG shall continue the work in next session of the Council.

This is reflected at Para 4(a).1 to Para 4(a).4 of summary of decision s of the Council.

(c) Symposium on Maritime Mobility by Republic of Korea:

A symposium was organized by the delegation of Republic of Korea during the lunch time in the plenary Hall. It was all about international technology trends, maritime digitalization, promotion of digitalized maritime transport with digital maritime routes, maritime cyber security technology, cryogenic storage system for liquified hydrogen fuel, policies etc. The delegation attended the symposium.

(d) International Maritime Prize:

There were two candidates for the year 2022 (Nominated by Germany and Marshall Islands). The Council, following a secret ballot conducted in accordance with rule 35 of its rules of procedure, determined the recipient of the International Maritime Prize for 2022 to be Ms. Anneliese Jost, nominated by the Government of the Federal Republic of Germany for her invaluable commitment to the work and objectives of the Organization. The Prize would be presented to the recipient at a special IMO Awards Ceremony to be held on the first day of the 33rd session of the Assembly in November, 23.

The Council further noted that, in relation to the 2023 Prize, a circular letter inviting nominations for the Award would be issued in due course and that nominations would need to be received no later than

31 March 2024 for timely submission to the Council at its 131st session in July 2024. This is reflected at para 15(h).1 to Para 15 (h).6.

(e) Intervention of India on disparity in geographic regions used at IMO under India's paper C/129/4(b)/1:

The delegation made an intervention based on India's paper on need for reforms in geographic regions used at IMO. India highlighted the disparity in the regions and requested the Council for a Working Group to deliberate this aspect further. The delegations of Indonesia, Egypt, Malaysia, Kenya, Colombia, Bangladesh were largely in line with India's submissions and need for constitution of a WG for deeper study of geographic regions. However, delegations like Germany, Cyprus, Belgium, Sweden Canada, UK, USA, Spain Netherlands, Denmark France, Argentina. Finland Chile Italy, Namibia, etc were not in-line with India's submissions.

The Council considered that no review of the geographical regions used at IMO for various internal and administrative purposes was necessary. The Council also recalled that, at its 128th session, the Secretariat had provided information on geographical regions used at IMO and the United Nations. However, the Council also noted that the Secretariat would carry out a review of the information previously provided on the criteria and regions used and policies applied in the United Nations and provide any additional information to a future session of the Council.

(f) Working Group on Council Reforms:

The Council re-established the Working Group on Council Reform under the chairmanship of Mrs. Amane Fethallah (Morocco) to develop criteria and procedures for the selection of meetings, or parts thereof, that should be live-streamed to the public. The WG sat and deliberated in Room No. 9. Capt. Daniel Joseph, NS took part in the meetings of WG. The Council endorsed the recommendation of the WG to recommend to the Assembly to decide to live-stream to the public its public plenary meetings with the following exceptions:

1 any time a vote is cast

2 any matter related to the appointment of the Secretary-General; and

3 any other discussion the Assembly may decide should be in a private meeting

This will be taken up by the Assembly in 33rd session in November, 2023. The Council also advised the IMO Secretariat to provide to 132nd session of the Council a further information on the rules and practices in other UN system organizations with regard to the publicity and live streaming of their meetings, or parts thereof, as specified by the WG. The WG shall continue in future session of Council.

(g) India's reception at Golden Jubilee Cruise at Thames River:

Shri T.K Ramachandran, IAS, Secretary, MoPSW, GoI and Head of Indian delegation giving a short speech on the occasion of India's reception.

Shri Vikram Doraiswami, High Commissioner of India at London giving opening remarks on the ocassion of India's reception

Secretary General of IMO with Indian delegation during the reception

Foreign dignitaries during India's reception

As a part of strategy for the election to the Council of IMO scheduled in IMO in November-December, 23,

the High Commission of India at London hosted the dinner reception at Golden Jubilee cruise (moving in the Thames River). The films made by the DGS/ MoPSW was screened before the dignitaries, the brochures, flyers, and gifts were also distributed to the dignitaries. Cultural program was also conducted which was attended by various IMO Delegates, High Commissioners, Ambassadors from various countries, the Secretary General of IMO. Short speeches were also given by the High Commissioner of India, Secretary, MoPSW, GoI and the Secretary General of IMO. The other delegation of India led by Commerce Secretary, GoI was also invited to the dinner reception. The delegation interacted with various dignitaries during the reception to garner support for India's forthcoming election to the IMO Council.

Day 3 (Wednesday, 19.07.23):

(a) Intervention of India on document C129/4(c)/1 and C129/4(c)/2:

The Council discussed the promotion of multilingualism in the work of IMO. However, the Council in particular noted the cost implications for further enhancement of translation and interpretation services at IMO.

The Council agreed in principle to the draft Assembly resolution attached thereto to be adopted at A 33, and invited interested parties to finalize the said draft Assembly resolution, in consultation with the Secretariat, taking into account the comments made and information provided by the Secretary-General, for submission to 130th session of Council and subsequent forwarding to 33rd session of Assembly for adoption. The Council requested the Secretary-General to undertake a detailed analysis, including associated costs, as well as logistical and operational implications within the Organization, and report back at C 130 for further deliberation.

Indian delegation also made a short intervention stating that technological solutions and Artificial intelligence can also be looked into to reduce the technological cost. The delegation of Bangladesh supported India's interventions for use of technology to reduce the cost in account of promotion of multilingualism.

(b) India's intervention based on India's paper C129/5(a)/3:

Shri T.K Ramachandran, IAS, Secretary, MoPSW, GoI and head of Indian delegation making a point at IMO

Shri T.K. Ramachandran, IAS, Secretary, MoPSW, GoI heading the delegation made an intervention. India in its paper to the Council highlighting the financial constraints faced by lower-middle-income developing Member States in nominating Junior Professional Officers (JPO) and Senior Professional Officers (SPO) to IMO. It makes certain proposals to resolve these financial constraints and to support lower-middle-income developing Member States in nominating JPOs and SPOs to IMO.

India requested firstly, to consider utilizing the Integrated Technical Cooperation Programme (ITCP) to facilitate nominations from lower-middle-income developing Member States. The other alternative proposal is establishment of a Voluntary Multi-

Donor Trust Fund [VMDTF] for JPOs or SPOs from lower-middle-income developing Member States similar to the establishment of VMDTF to facilitate the participation of developing countries, particularly SIDS and LDCs, at IMO meetings. Indian intervention with these proposals or any other alternate mechanism which can be suggested by the member states or IMO Sectt, invites the Council to determine the most appropriate mechanism for supporting the lower-middle-income developing countries in nominating JPOs and SPOs to IMO in order to eliminate the existing disparities and inequities in the occupation of the JPO and SPO positions at IMO.

Philippines, Kenya supported India's submissions. However, countries like Germany, Cyprus, Netherland, Denmark requested that India's paper can go to Technical Cooperation Committee of the IMO for further considerations.

The Council noted the information provided in India's paper, as well as the information provided orally by the Secretariat on the JPO and SPO Scheme and the undertaking by the Republic of Korea to sponsor three JPOs from developing Member States as part of the IMO-Republic of Korea SMART-C (Sustainable Maritime Transport Cooperation) Programme. The Council asked the IMO Secretariat to continue to explore mechanisms to support developing countries, in particular SIDS and LDCs, in participating in the JPO and SPO Programme and provide updates at a future session of the Council.

The Council forwarded the document to the Technical Cooperation Committee for further consideration, with the request for an update at a future session of the Council.

(c) Meeting with Secretary General, IMO;

Shri T.K. Ramachandran, IAS, Secretary, MoPSW, GoI and head of the Indian meeting the Secretary General IMO

The delegation made a courtesy call to the Secretary General of IMO and discussed the issues of mutual interest. The SG, IMO remembered the contribution of Mr. C.P. Srivastava, former IMO Secretary General.

The delegation discussed the possibilities of opening a Centre of Excellence / Maritime Technologies Cooperation Centres (MTCCs) in India. It was informed by the SG, IMO that it comes under the Department of Projects and Partnerships and may be discussed with Mr. Jose Matheickal, Director of that Department at IMO. The general issues on green shipping cooperation were also discussed. The SG, IMO emphasized that green energy supply system in shipping needs to be promoted.

Indian delegation meeting the Secretary General of IMO

(c) Reception by Thailand:

The part of the delegation attended the reception hosted by the Thailand in the evening.

Day 4 (Thursday, 20.07.23):

(a) India's intervention on Result Based Budget (2024-25)

The Council welcomed the information provided by the Secretary-General and his budget outline for the 2024-2025 biennium and expressed its appreciation for his efficient exercise of budgetary control.

The Council approved in principle the regular budget outline for the 2024-2025.

Indian delegation also made a short intervention and supported the budget with the hope that steps for economization will continue.

(b) Presentation by Saudi Arabia on Port of Neom:

The Saudi Arabian delegation made a PPT during the lunch time in the plenary Hall on its Port of Neom being developed in the Northern part of the country. They highlighted on industry, nature and human habitat together as part of development of the port. The port will use renewable energy (expected to meet 50% demand by solar power). Realtime intervention will be made feasible.

(c) Deliberations on hosting of World Maritime Day Parallel event in Tehran, Iran in September, 2023:

As per previous decision of the IMO Council, Iran was to host Parallel event for World Maritime day, for the year 2023 in Tehran. However, the UK and US vide their Working Paper (C 129/WP.8) have requested the Council to rescind the decision due to illegal actions of Iran in relations to ships. The two Council member (Russia and China objected to such requested made by UK and US and demanded for a vote. Accordingly, there was a vote by Roll-call method. The proposal of UK and US won the support of the Council by 22 votes (India and 14 other abstained). The representative of High Commission of India was present during the voting.

Accordingly, Council's earlier decision to accept the offer made by the Islamic Republic of Iran was rescinded. **Therefore, the World Maritime Day Parallel Event would not be celebrated in 2023.**

(d) Meeting with Director, International Oil Pollution Compensation (IOPC) Funds:

India is the largest contributor to the IOPC Funds as it is the largest importer of oil. The delegation met the Director IOPC and discussed issues such as mechanism of payment from the funds, audits, and contributions from the importers.

It was informed by the IOPC Director that that India being the largest contributor to the find may continue to be Member of Joint Audit Body of the IOPC Fund. The term of current Joint Audit Body is ending this year and the nomination may be sent by 30th September, 2023 by India.

Indian delegation meeting with delegation of Indonesia and P&I Club to discuss release of 03 Indian seafarers in Indonesia

Meeting with Indonesia on release of 03 Indian seafarers:

The Indian delegation invited the P&I club involved in the MT Aashi incident in which 03 Indian seafarers are held up in the Indonesia to IMO for a meeting wherein Indonesian delegation was also present. The issues were discussed and it was decided that further meeting will be held in the week starting from 24.07.23 with all related parties involved in the matter.

Day 5 (Friday, 21.07.23):

(a) Postponement of certain Agenda items:

Owing to time constraints, the Council postponed the consideration of the agenda items 7, 8 (a), 8(b), 10, 11, 12, 17 to the next session (130th session) of the Council scheduled in November, 2023.

India's paper on Hong Kong Convention under Agenda item 17 will accordingly be taken up for deliberations during the next session of the Council.

The report of the two Working Groups and the summary of decisions of the deliberations of the Council were discussed and finalized.

(b) Interaction with IMO delegates to spread awareness on Global Maritime India Summit, 2023:

The officers in the delegation interacted with the delegates of Singapore, UK, USA, Japan, Bangladesh, Malaysia, Indonesia and Saudi Arabia to spread the awareness about the above global even proposed to be inaugurated by the Hon'ble Prime Minister.

The Ministry may like to send invites to various countries as above and other countries such as Australia, France, South Korea, Netherlands, all countries in BIMSTEC region, Iran, EU, etc, for taking part in the Global Maritime India Summit.

As was desired by the Secretary, MoPSW, GoI, the IMO's, Director of Department of Projects and Partnership was requested if the IMO Green Voyage 2050 training event being organized from 10-12th October in Mumbai by Royal Norwegian Consulate, and may be organized as part of Global Maritime India Summit, 2023 Similarly if INMEX seminar/event being organized from 4th –6th October in Mumbai may also be part of Global Maritime India Summit, 2023. However, it was informed by the IMO that during that period the meeting of Technical Cooperation Committee of the IMO will be there at IMO, hence organization of such event may not be feasible.

12th Foundation Day Celebrations - Maritime Trainers Guild

The Maritime Trainers Guild Foundation Day event held on August 5, 2023, in Chennai, India, focused on the vital theme of **'Developing Future-Ready Maritime Trainers'.** The event brought together maritime industry professionals, educators, policymakers, and experts to discuss, collaborate, and strategise the ways in which maritime trainers can enhance their skills, adapt to evolving industry demands, and prepare the next generation of maritime professionals for success in a rapidly changing global landscape.

Capt. Kamal Chadha (General Secretary, MTG) welcomed all the members, dignitaries and Chief Guest, **Shri Shyam Jaganathan, IAS** (Directorate General of Shipping, India). **Capt. Prabhat Nigam** (President, MTG) discussed the brief history and the journey of MTG from 2012. Shri Shyam Jagannathan in his address mentioned the Maritime Vision 2030 and highlighted how India ranks among the top five economies contributing to seafarers globally owing to cutting edge core competencies. He hinted at examination reforms and an urgent need to improve and introduce a revamped examination platform by April 2024.

Three Panel discussions were organised highlighting the necessity of adapting training methodologies to align with technological advancements, industry shifts, and the expectations of the next generation of seafarers. The discussions emphasised the significance of embracing Information and Communication Technology, collaborative learning, continuous professional development, and practical relevance in shaping the maritime trainers of tomorrow. The event's deliberations have set a positive trajectory for the evolution of maritime training in the coming decade, ensuring that maritime professionals remain equipped with the skills and knowledge required for

S.No.	Topic	Session Chair	Moderator	Panelists
1	Developing Maritime Trainers of Tomorrow	Dr. Rajoo Balaji	Capt. Shoukat Mukherjee	Capt. Subramanian Anand Capt. K. Karthik Dr. Aprajita Bhardwaj
2	Developing Maritime Training to Cater to the Next Decade	Dr. Surender Kumar	Mr. David Birwadkar	Capt. S. Kishore Mr. Mani G.R. Dr. Gulshan Dhillon
3	Courses In Which Online Blended Training Will Be Effective	Capt. P.K. Mittal	Capt. Sanjiv Verma	Capt. Arvind Shankar Mr. Shriram Nagarajan Capt. Shri Prakash

a rapidly changing industry landscape.

The Maritime Trainers Guild Foundation Day Event served as a significant platform for stakeholders in the maritime industry to collectively address the challenges and opportunities in developing future-ready maritime trainers. The discussions and recommendations from the event contribute to the ongoing efforts to enhance maritime training standards, technology integration, and the overall competency of maritime professionals in a rapidly evolving global landscape. The event's success underscores the commitment of the Maritime Trainers Guild to foster excellence in maritime education and training.

Written by:-
Dr Gulshan Dhillon
Assistant Professor, Chitkara University

Tech and Human Resources Seminar by IME(I) and IEI

The Institute of Marine Engineers (India), Chennai Branch, along with The Institution of Engineers (India) Tamil Nadu State Centre, in collaboration with the Marine Engineering Division, has co-hosted a Technical Seminar on the theme **"Future Technologies, Human Resources Development, and Entrepreneurship within the Marine Industry."** This event took place on the 22nd of July, 2023, at the IEI TNSC Auditorium located in Chepauk, Chennai.

Mr. S. Kannan, as the Chairman of IEI TNSC (Tamil Nadu State Centre), initiated the gathering and extended invitations to all members of the fraternity attending the meeting. Following this, **Mr. Sanjeev S. Vakil,** the Chairman of IME(I) Chennai Branch, greeted the attendees and introduced the Chief Guest, **Mr. C. V. Subba Rao,** who holds the position of Managing Director at Sanmar Shipping Ltd.

The speakers were introduced by **Mr. R. Muthuswamy,** Hon. Treasurer, **Mr. Suresh Shenoi,** Vice Chairman and **Mr. S. Rengaraju,** IME(I) Chennai Branch member. The Session was moderated by Mr. Shenoi.

The following topics were presented by eminent speakers from the industry:

1. **Mr. Manoj Kumar Pandit**, Faculty, HIMT College spoke about the recent developments in Maritime Industry toward green energy transition. As a part of these initiatives he spoke on usage of hydrogen fuel cell technologies and electrical propulsion for future ships. Having considered these green energy transitions already happening worldwide he also emphasised how India can benefit from such technology developments through our Make in India initiatives and how various maritime technology start-ups can emerge as ancillary supports to the Indian as well as Global shipbuilding projects working on such green energy transition projects.

2. **Capt. Arvind Shankar**, the Culture and Capability Manager at Maersk and a champion of diversity in the maritime industry, delivered a compelling presentation on closing the gender gap in seafaring to foster greater 'thought diversity.' He emphasised the stark reality of only 0.5% Indian women seafarers today, underlining the need for inclusivity and its advantages.

Through his presentation, Capt. Arvind shed light on the global and national commitments supporting industry transformation, such as the UNSGD goal 5 and the Maritime India Vision 2030. These initiatives reinforce the importance of promoting gender equality and diversity in the maritime sector.

Maersk's proactive approach towards diversity was evident as Capt. Arvind shared the various actions taken by the organisation. They have focused on creating awareness, transforming the learning journey, and up skilling and training both ship and shore organisations. These efforts ensure that women cadets and officers

feel psychologically safe in their learning and work environment, enabling them to reach their full potential and grow their careers confidently.

Capt. Arvind, aptly nicknamed the "Crusader in Blue," has not only highlighted the significance of gender diversity but also demonstrated how it aligns with global and national visions. His dedication to this cause sets an inspiring example for the industry to follow, making seafaring a more inclusive and forward-thinking domain.

3. **Mr. T. S. Devananda**, Chief Engineer, Faculty, MASSA, made an excellent presentation and spoke about Powering sustainable shipping by moving towards zero carbon.

Ship powered by LNG -ETHANE-METHANOL-LPG-AMMONIA

Main Engine: ME-GI: ME-GA: ME-GIE: ME-LGIM: ME-LGIP

And by year 2024 ship would run on Ammonia.

Main Engine: ME-C: Engine running mode can be changed from

Economy mode to Emission Mode to reduce NOx Value for Tier III

Main Engine are equipment to reduce NOx value to Tier III

Selective Catalytic Reduction (SCR)

Exhaust Gas Recirculation (EGR)

Water in Fuel

METHANE SLIP

Methane slip is unburned CH4 which is not participating in the combustion process

Methane as GHG is 20–25 times more harmful than CO2

So Main Engine is pressure reduced from 300 bar to 200bar to 10 bar to reduce the methane slip.

Finally Main Engine is developed to run on Ammonia.

Technical Session - Paper presentation for students - Students paper presentation session was moderated by Dr. K. Sivasamy, Ex. Committee Member, IME(I) Chennai.

1. Cadet. Azizur Rahman , AMET University
2. Cadet. Richardson Elias Robert, Maritime Foundation
3. Cadet. Mahiban Fernando & Cadet. Rohith

Mementos were presented to the Chief Guest and to all three speakers followed by Participation Certificate to the students.

The audience consisting of IME(I) Chennai Members, Master Mariners and non-member Marine Engineers from the shipping industry were attentive and seemed to have enjoyed the presentation.

Vote of thanks was given by **Mr. K.N. Sivaraju**, Hon. Secretary IEI TNSC.

The seminar was followed by lunch.

Highlights from the AGM

The IME(I) Visakhapatnam Branch convened its Annual General Body meeting at the Seminar Hall, Marine Engineering Department, Andhra University College of Engineering, precisely at 1700 Hrs. on the 7th of July 2023.

The Annual Report was presented by the Secretary, **Shri. B Lakshmana Rao,** and Audited report of the Branch accounts was presented by Treasurer, **Shri. P V V Harihara Rao** and were passed by the members.

Shri. S V Durga Prasad was selected for the award of Eminent Engineer of the Year 2023 for IME(I) Visakhapatnam Branch. **Shri. Prasad** was presented with a shawl and a memento by **Shri. Vijayananda Kumar Amara**, Chairman, **Dr. V V S Prasad,** Vice chairman, **Shri. B Lakshmana Rao,** Secretary, **Shri. P V V Harihara Rao,** Treasurer, **Dr. D. S. Anand,** GC Member, and **Shri. V Lakshmipati Rao,** Ex- Chairman.

The meeting was concluded after vote of thanks and National Anthem.

Book Release

Branch News

Visakhapatnam

Unveiling 'Development of Bio-Based Nano Polymer Composite Materials': A Book Release Ceremony

On July 18th, 2023, a significant event took place with the release of a book titled "Development of Bio-Based Nano Polymer Composite Materials." The authors of the book are **Prof. V.V.S**. Prasad, who serves as the Vice-Chairman of IME(I) and is associated with the Visakhapatnam Branch, and also holds the position of Head of the Department of Marine Engineering at Andhra University. The co-authors of the book are **Mr. Maduthuri Venkatesh** and **Mr. Abhishek Nalluri**. The book was published by Lambert Publishers.

The book release event occurred at the Department of Marine Engineering within the premises of Andhra University College of Engineering in Visakhapatnam. The honorable guest who unveiled the book was **Prof. V. Krishna Mohan**, the Registrar of Andhra University. Alongside him, **Dr. D.S. Anand,** a GC Member of IME(I), was also present to mark the occasion.

IME(I) members, **Shri. Amara Vijayananda Kumar**, Chairman IME(I), Visakhapatnam, **Shri K. Bimdhu Mohan,** Ex Chairman IME(I), **Shri. Voona Lakshmipati Rao**, Ex Chairman IME(I), Shri. **B. Lakshmana Rao,** Secretary IME(I), **Shri. P V V Harihara Rao,** Treasurer, IME(I), Visakhapatnam, students and the research scholars attended the Book Release function.

Exploring Computational Fluid Dynamics: A Workshop

A national workshop titled "Computational Fluid Dynamics" was collaboratively organised by the Department of Marine Engineering, Andhra University and IME(I), Visakhapatnam Branch between 18-7-2023 and 28-7-2023. The event, held under the guidance of **Prof. V.V.S. Prasad**, Convener, Vice-Chairman of IME(I) Visakhapatnam Branch, and Head of the Department of Marine Engineering at Andhra University, took place at the Marine Engineering Department seminar hall in Visakhapatnam. The inauguration of the workshop featured Chief Guest **Prof. V. Krishna Mohan**, Registrar of Andhra University, and Guest of Honour **Dr. D. S. Anand**, CMD of Marine Corporation of India Pvt. Ltd. and GC Member of IME(I).

The workshop aims to provide a platform for participants to improve their understanding of CFD, explore the latest advancements, and foster collaboration with leading experts, researchers, and enthusiasts in the field of CFD.

Shri. Amara Vijayananda Kumar, Chairman, IME(I), Visakhapatnam Branch, **Shri. K Bimdhu Mohan**, Ex-Chairman IME(I), **Shri. Voona Lakshmipati Rao**, Ex Chairman IME(I), **Shri. B. Lakshmana Rao**, Secretary IME(I) and **Shri. P V V Harihara Rao**, Treasurer IME(I) attended the event. IME(I) members, students and the research scholars were highly motivated and benefited from the two week workshop.

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- Long term commitment.
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- Working with a dynamic team
- Freedom to implement new ideas

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including annual incentives & Long term commitment.

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LOCATION: Chennai, Kalpakkam & Vizag

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- Experience in Simulator Training is preferred.
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- Willingness to take both Competency & Revalidation courses.
- Age below 55 years would be preferred.
- Masters/Chief Engineers with no teaching experience and above 55 years can also apply.

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- Engine room Apprentice (ERA), Petty officer Mechanical Engineering (POME) and above , NBCD Instructor for fire fighting training.
- Life Guard for swimming pool.

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Preference will be given to instructors already teaching PST, PSCRB, AFF, FPFF courses in DG Approved MTI's

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Snippets of Annual General Meeting

The Annual General Meeting of IME(I) Kolkata Branch for the financial year ending 31st March, 2023 was held on 21st July, 2023 at Princeton Club, Kolkata.

In his opening speech, **Mr. Gautam Sen,** Chairman, IME(I) Kolkata welcomed all present and stated that, with the Covid situation in some control in the latter part of the financial year, the Branch was slowly able to resume its activities to some degree, cautiously moving from online meets to physical on-ground meets. This year's AGM was thus the first physical AGM since 2019. He thanked members for bearing with the situation in the difficult times.

He also informed that, with the shutting of the Facilitation Centres across all branches of IME(I), headquarters has been keen to reduce expenses and increase revenue at headquarters and branches alike. With this in view, some steps were being taken at Kolkata Branch as well, in consultation with, or under the advice of, headquarter.

Minutes of the previous AGM held on 12th August, 2022 were confirmed by a show of hands. The Branch Activity Report for the year 2022-23 was presented in PowerPoint form by Mr. Abhijit Banerjee, Hon. Secretary, IME(I) Kolkata Branch. Balance Sheet and Audited Accounts of the Branch for the year 2022-23, which had been posted earlier to the members, were accepted without any amendment. The auditors were reappointed branch for the financial year 2023-24. Under 'Any Other Matter', various points raised by members present were answered or taken note of. Then a formal vote of thanks was proposed by Hon. Secretary.

The meeting concluded with a sponsored dinner.

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REO
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DURATION 4 DAYS

EVERY MONTH

Advanced IGF
Advanced Training for Ships using Fuels covered within IGF code

DURATION 5 DAYS

EVERY MONTH

ERS
Engine Room Simulators\Operational Level MEO CLASS - IV

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ERSM
Engine Room Simulators Management Level -MEO CLASS II

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DECGS
Diesel Engine Combustion Gas Simulator - MEO CLASS-I

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HV
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R-AFF
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Every Week

R-PSCRB
Refresher Proficiency in Survival Craft Rescue Boats

Every Week

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Dipping the Beak in the Soup

1. Cargo was shipped from Country A to Country B on FOB basis in few containers through a reputed shipping line. Cargo arrived and the containers were laid by at an allotted space at the Container Freight Station (CFS) of the port.
2. The local handling agent of the Freight Forwarder (FF) held the Bill of Lading (BL) awaiting payment clearance from the Cargo Owner before handing over the BL to the named Consignee.
3. Consignee was yet to inspect the goods and then pay as contracted before taking delivery. Consignee after few weeks inspects the cargo and sends message to the FF / Cargo Owner that current market value of the goods, during a customs inspection, has been found to be much lower than that contracted and that the goods are of poor quality.
4. Consignee did not reject the goods officially while maintaining with FF that the steps are being taken to take cargo in possession.
5. Several months pass by and the total demurrage, CFS charge, fines, custom duties and other costs become more than 10 times the invoiced value of cargo.
6. FF required the containers to get empty as early as possible to mitigate further losses while Consignee applied to cancel the Bill of Entry (BE) which was issued earlier.
7. The line then puts pressure on the FF to get its containers back while the CFS pressurised the local handling agent to get the containers empty and remove the containers. Relationship of FF sours with the line and local handling agents due to above factors during several communications.
8. The FF then approached the local cargo brokers near the port to resolve the issue and got advised either to file request through the line to abandon the cargo or find a new buyer and get all ownership transferred in the name of new buyer.
9. Off the record communications revealed that to get the cargo ownership papers reissued in the name of new buyer would involve a complex and time-consuming process at the customs and in between FF/ Cargo Owner may have to incur other expenses to get the work done which may be as high the value of cargo itself.
10. To file a request for abandoning the cargo, FF required cooperation from the line. Thereupon customs would have issued a notice to all parties before planning the auction of the cargo to receive NOCs. Should any party files objection against the initiation of auction process, there would occur further delay.
11. Meanwhile the daily demurrage, CFS charges, fines etc keeps on increasing as each day passes by. FF does not want to approach the line as it would be asked by the line to pay accumulated demurrage first before line cooperates in any sense. FF intends to settle with line after it gets the containers emptied.
12. Further it turns out that the Consignee is also a cargo broker and knows the tricks of the trade very well. He is expected to wait for the auction and buy the same cargo at less than half of the invoiced value through auction.
13. FF sitting in a far away country is just caught up with the system at the port of discharge and is counting on damages as each day passes by.

Written by:
Ritesh Kaushik
Maritime and Commercial Lawyer / Marine Engineer

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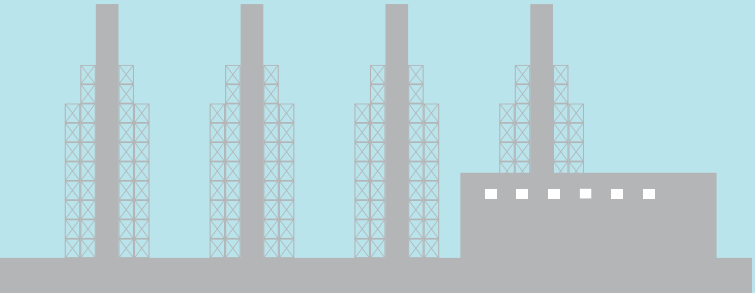

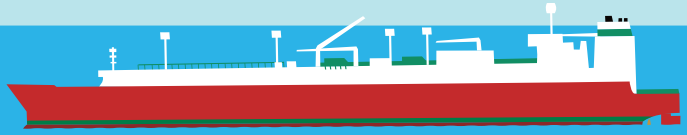

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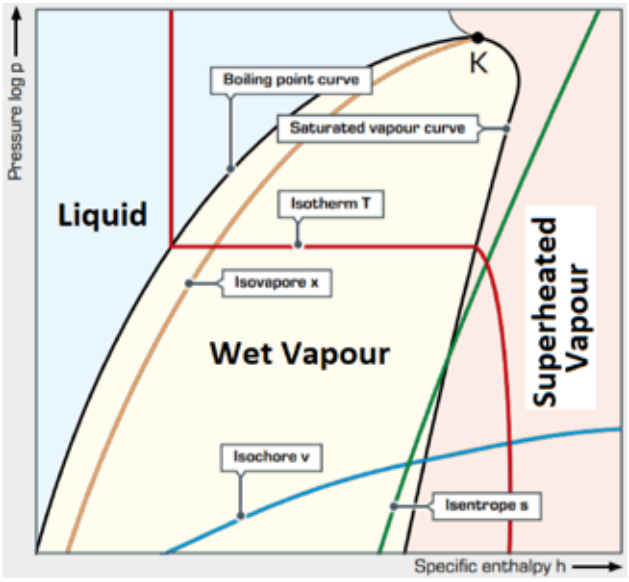
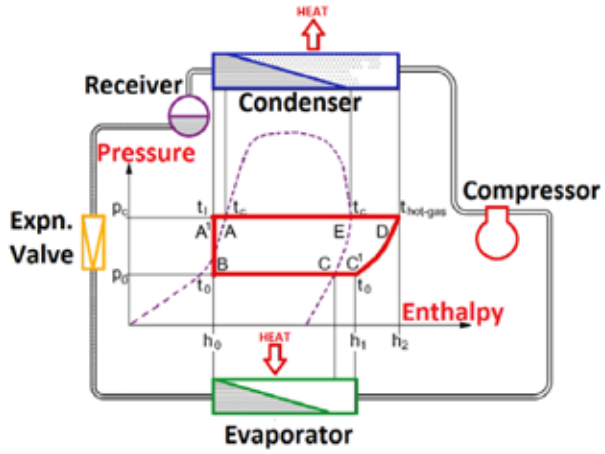
Function of Thermostatic Expansion Valve

The refrigeration system that is installed on board has the following components: Compressor, Oil separator Condenser, Receiver, Drier, Thermostatic Expansion valve and Evaporator. All these components are connected together with tubing/piping. An overview of the refrigeration cycle will help for better understanding of the function of each of these components.

The diagram represents the various states the refrigerant undergoes during the process. On the left of the saturation curve the refrigerant remains as a liquid. Within the saturation curve, the refrigerant remains partially as a liquid and vapour. To the right of the saturation curve, the refrigerant remains as a vapour.



The discharge side of the Compressor, Oil Separator, Condenser and Receiver and drier constitute the "high pressure side" (P_c). The outlet side of the Thermostatic Expansion valve, the evaporator, and compressor suction constitutes the "Low pressure side" (P_0).



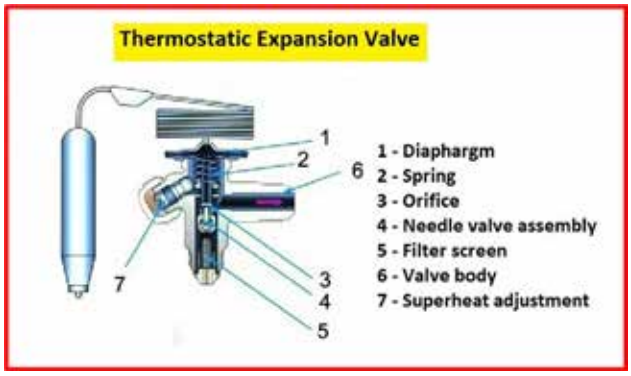
The refrigerant undergoes a change in state in the condenser as well as the evaporator. In the evaporator, the liquid refrigerant absorbs heat and gets converted to vapour. This is represented by the point C. However to prevent liquid hammer, superheated vapour is admitted to the compressor at C'.

The curve form C' to D represents the compression process. The pressure is increased from P_0 to P_c this is accompanied with an increase in enthalpy from h_1 to h_2.

The process in the condenser is represented in 2 stages: D to E the temperature of the vapour drops and E to A where the refrigerant changes state from vapour to liquid. Some under-cooling occurs (A to A'). The curve A' to B represents the change within the thermostatic expansion valve.

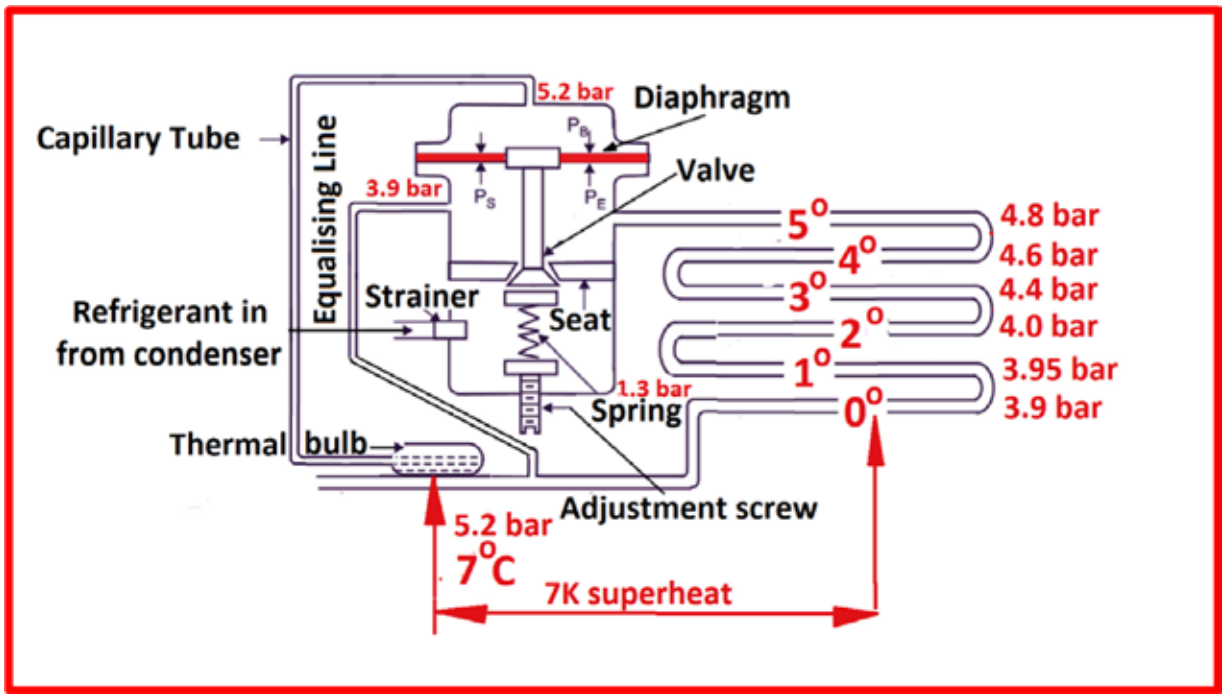
The most important component in the entire system is arguably the Thermostatic expansion valve. Thermodynamically as the refrigerant passes through the thermostatic expansion valve the pressure drops from P_c to P_0 also the temperature drops from t_1 to t_0

The function of the TEV is to maintain the flow of refrigerant to the evaporator at a rate which precisely matches the instantaneous load.



The TEV is designed to maintain a constant superheat temperature of 5 to 7 K at the outlet of the evaporator. By maintaining a constant superheat the TEV ensures that the evaporator is filled with the required volume of refrigerant and more importantly prevent the carry-over of liquid refrigerant to the compressor, which could happen in case of a sudden reduction of the cooling load. The damage due to liquid hammer can render the compressor beyond economical repair! The important parts of a TEV are shown in the illustration above

The operating principle below is described using the pressures and temperatures associated with refrigerant HCFC22: It is firstly important to note that the evaporating pressure (and saturation temperature) rises as the



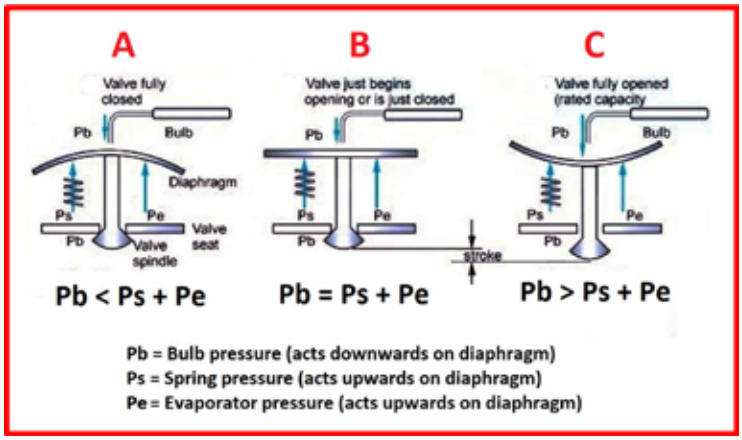
cooling load increases and vice-versa. The diaphragm is exposed to the evaporating pressure and the spring pressure on the underside. The upper surface is exposed to the pressure created in the remote sensor bulb and the capillary connecting these due to the presence of a small quantity of the same refrigerant as is used in the system. When the load is constant, the diaphragm will be in a position of equilibrium. The superheat value of 7K causes the remote sensor bulb to be held at 7°C and the refrigerant contained therein will create a pressure of 5.2bar. The evaporating pressure of 4.8bar is generated by a balance of cooling load and compressor pumping capacity, resulting in 5°C saturation (evaporating) temperature.

If the load increases, the rate of refrigerant liquid supplied by the TEV has to correspondingly increase. However, this does not happen instantaneously. The additional heat energy received by the evaporator coil evaporates the entire liquid refrigerant and causes a greater temperature rise in the remaining vapour (increased superheat). This causes the remote sensor bulb to increase in temperature and the liquid/vapour refrigerant mix contained in the bulb and capillary line will also increase in temperature with a corresponding rise in pressure. The increased pressure over the diaphragm causes the needle to move downward, increasing the refrigerant flow through the orifice. The increased flow provides increased cooling (latent heat of vaporisation) with a corresponding reduction in superheat which returns to the original setting governed by the spring which has been adjusted to give 7K. Refer to (C) in the illustration Pb > Ps + Pe

When the load is in equilibrium the Bulb pressure balances the combined pressure of the spring and evaporator. The TEV just begins to open or close as the case may be. Refer to (B) in the illustration Pb = Ps + Pe

When the desired temperature in cold room is attained, the pressure in the bulb reduces. This causes the combined pressure of the spring and evaporator to overcome the bulb pressure and the valve closes. Refer to (A) in the illustration Pb < Ps + Pe

Thus the bulb is constantly sensing the demand of refrigerant in the evaporator and triggers the opening or closing of the TEV. The capillary is the most vulnerable part of the TEV. The capillary and the phial are constructed from stainless steel to withstand the vibration and flexing that these parts are subjected to. It is also important that the phial is in intimate contact with the evaporator coil to ensure accurate sensing of the temperature.



Written by:-
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Black Carbon a Pollutant, Impacts & Control Measures

Abstract: All living things that live on this earth come under the environment. The environment is a nature that nurtures our life on the planet. Everything we feel, breathe, and eat in our lives comes from the environment. Without which it will lead to catastrophic disasters. Many leading organizations like IMO have implemented new rules and protocols to keep harmful human activity at bay to prevent these forsaken cataclysmic scenarios. To reach the IMO 2050 goal many technical reforms must be performed. This paper introduces the adverse Impacts of black carbon, sources, and control measures. Installation of Exhaust Gas Cleaning systems, change in the fuels, use of hydrogen cells and installation of various systems which result in the carbon reduction goals

Keywords: Black Carbon, HFO, Scrubber.

Introduction

The merchant ships consume heavy amounts of fuels, so this fuel emits heavy pollutants such as So_x, No_x and Black Carbon as Soot. So in Our research, We Have Highlighted The Black Carbon Impacts, the Quantity Of Emission By Certain Ships, And Its Control Measures. Black Carbon Are Produced by Ships Burning Heavy Fuel Oil It Accounts For 21% Of CO_2 Emissions [2], Making It The second most crucial driver of shipping climate impacts after carbon dioxide. In Our report, we found that ships emitted an estimated 67 thousand tonnes of black carbon in 2015 [3]. Our paper will lead you to the ways to control Black Carbon, SO_x and NOx. Paper will lead you to Black carbon control measures, including switching to cleaner-burning fuels and using diesel particulates filters.

Black Carbon and On Board Ship Pollutants

Black carbon is formed when the fossil fuels are burnt, and there is incomplete combustion of fossil fuels, woods, and other fuels, and the remaining fuels which are completely combusted turn into Co2, but the combustion is never completed due to which various gases like carbon monoxide, Co2, organic carbon and black carbon are formed in the process affecting the climate studiously. The resulting matter from incomplete combustion of the complex mixture is called soot.

Black Carbon Is A Primary Pollutant

Black carbon is produced when Heavy Fuel Oil are burnt within 1320 to 1540°C. [5] With this reference to the question, even if we start reducing the emission of black carbon from its sources, the effect on the environment might come to some low extent, leading to low health risks. If we look into many organizations that are taking various steps to help get the emission of carbon in the air, IMO has introduced various tiers systems within the shipping side to reduce the effect as ships are one of the sources of the emission of Carbon Dioxide SOx, NOx. So IMO has a target to cut emissions by 50 % by 2050 and completely by the 21st century [6]

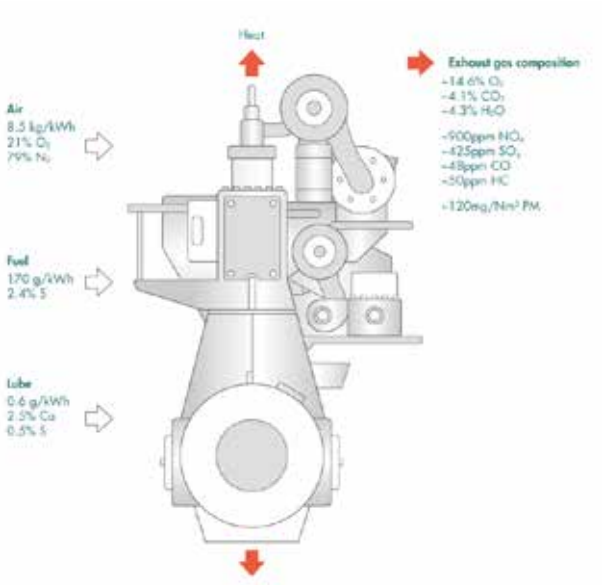

Figure 1: Exhaust Gases Composition of slow speed two stroke engines using residual fuel [12]

Black Carbon Impacts

Climate Impacts

Black carbon is very effective at absorbing light and heating the surroundings as the 1 unit of black carbon has a warming impact on climate that is 460-1500, which is much stronger than Co_2. [7] Due to its warming effect when suspended in the atmosphere, it influences the cloud formation in its surroundings and impacts its regional circulation and rainfall patterns as black carbon is converting the incoming solar radiation to heat. The Arctic and the Himalayas are slowly getting melted because of black carbon because the ice, which was good at reflecting the sunlight, is not able to do so now because of the reduction of surface albedo, making the surroundings get heated up and get started melting. Health impacts. The PM 2.5 particles are the critical components of delicate particulate matter of black carbon being emitted into the air causing the environmental cause of poor health and premature deaths. If we start counting the deaths, which is getting around 7 million each year, signs of premature deaths attributes to household and ambient PM2.5 air pollution.[8]

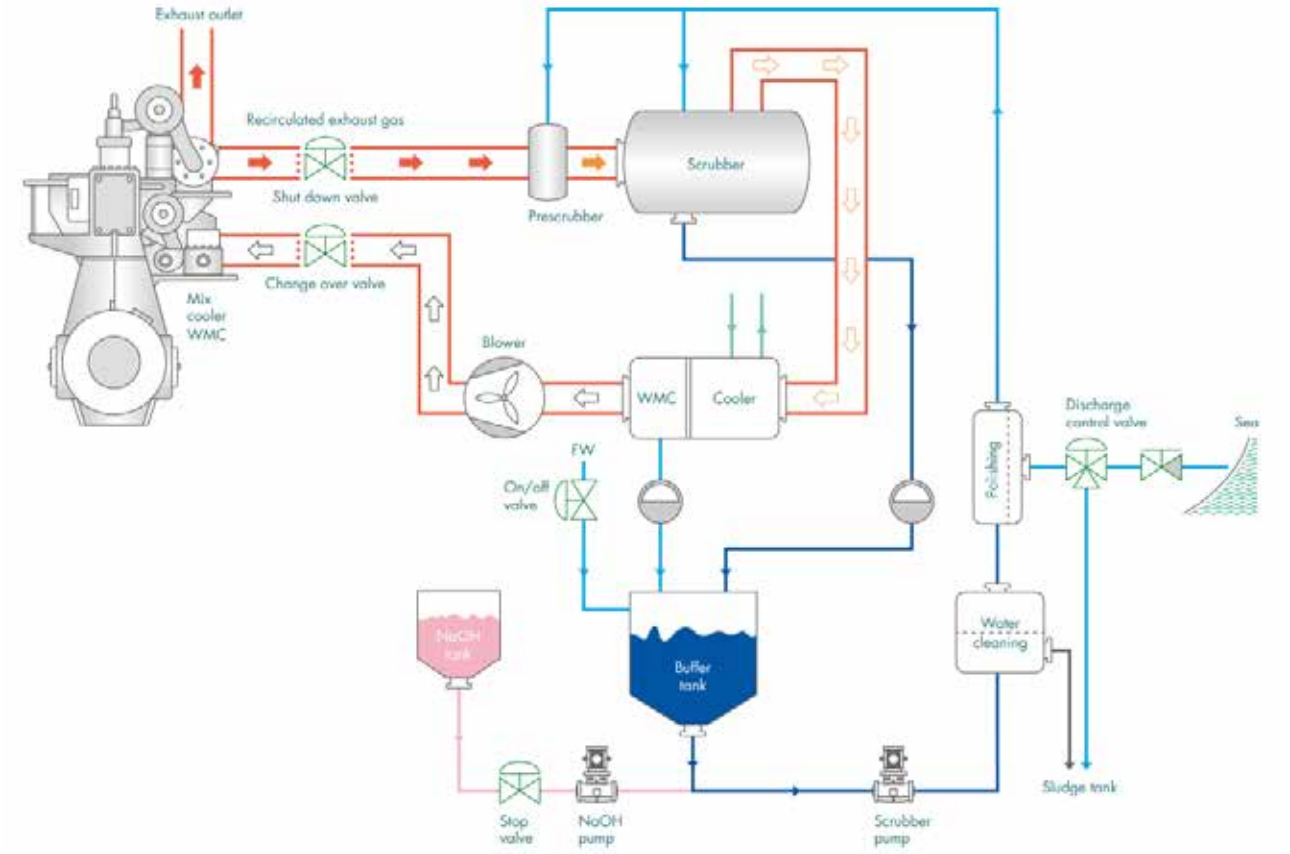

Figure 2: Design of Different types of Wet Scrubbers [13]

Black Carbon in Artic Ice beds

As we have already seen that black carbon makes the ice melt more quickly, making the job of sailors, or we can say making the sailing much harder than any other situation as the warming had made the change in weather and climate have created sea more volatile resulting in increased risk in ships and due to which the ships which are sailing due to sudden change have made the sailing delay. Factors that are impacting the travel time of ships are ice thickness; concentration, drift speed, and direction are some impacts.

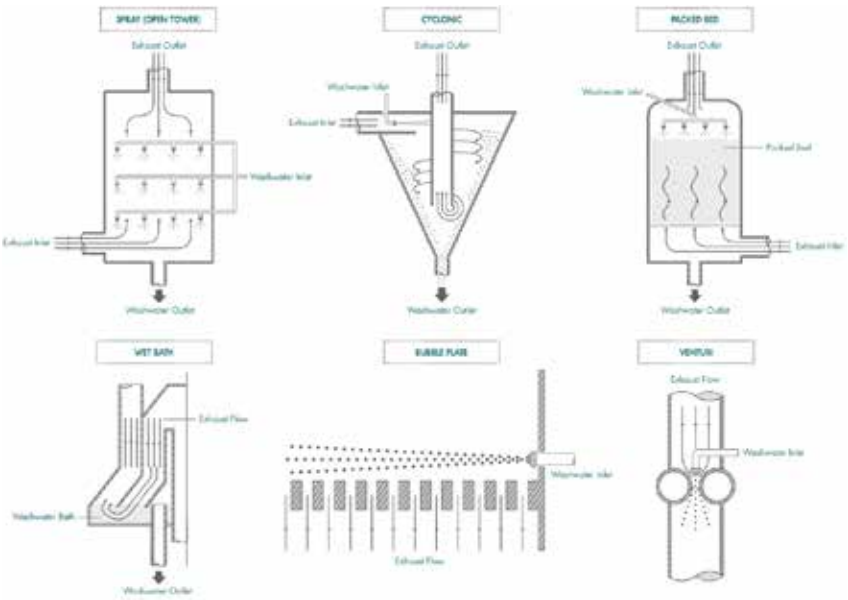

Figure 3: Line Diagram of Scrubbing System [14]

Control Technologies

Many organizations have shown up with different studies and different technologies and operational practices that can be used to reduce the impact and emission of black carbon from ships.

Exhaust Gas Cleaning Systems

1. Wet scrubbing with absorption
2. Dry scrubbing with adsorption
3. Exhaust Catalyst

Many ships have introduced this system where these exhaust gas cleaning systems such as scrubbers can reduce the emission of black carbon as these scrubbers can reduce the emission by roughly 30 per cent. Ships like cruise ships that use such heavy machines to run heavy ships carrying many people have installed scrubbers to comply with ECA to meet the standard emission of sulfur. At the same time, other ships have been notified to comply with the new 2020 sulfur standees 0.5 fuels and install the scrubbers as early as possible. The scrubbers are being used to reduce

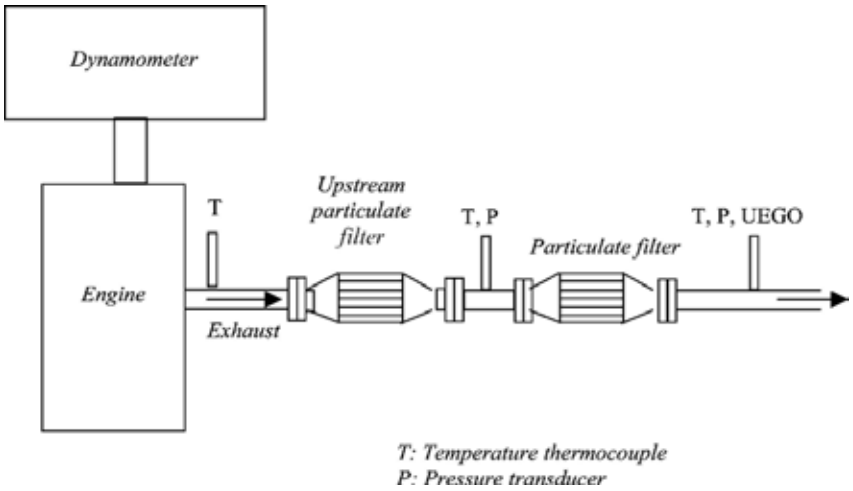

Figure 5: Diesel Particulate Filters Location in Car [16]

the emission of black carbon on an average of 11% [9].These Scrubbers have been further modified to Carbon Capture systems where it is more efficient and requires less Volume storage

Carbon Capture and Storage System

Increase in weight leads to more fuel consumption on board ship as a result BW with DSME and HI AIR KOREA have modified the scrubbers in such a way that the scrubbing liquid would be solidified and the weight will reduce after the process of scrubbing and hence the fuel consumption rate will decrease to a greater extent. This system captures Co2 from the exhaust and traps it under the dedicated storage tanks as a form of solid (Credits to Air Korea and DSME along with BW LNG)

Fuel Switching

Use of Biofuels

Use of biofuels can reduce the emissions up to 86% [10], just by switching from HFO to Marine Diesel Oil there is a huge reduction of emissions, in the future there can be use of biofuel in shipping industry. Many companies now are working on the use of Biofuels in the maritime industry. The Disadvantage of using biofuel is the cost, to reach the 2050 goal there has to be an alternative, and who knows biofuel can be it.

Installation of Diesel Particulate Filters

Installing diesel particulate filters (DPF) can reduce black carbon emissions by 70-90% (Clean Air Task Force) [11]. If catalysed DPFs are used with reverse pulse flow can make the emission of black carbon to a much smaller extent. DPFs work more generously when operated with pairs of higher quality distillate fuel, which have lower sulfur and ash contents and fewer impurities that can damage the filters. We can think of using automobile machineries in maritime field in near future.

Hydrogen Cells/Fuel Cells

Fuel Cells are batteries. They work on Fuel, specifically hydrogen, Heat, and electricity is produced as long as the Fuel is supplied. A fuel cell consists of anode and cathode packed around an electrolyte, Fuel is fed to anode, and air is fed to cathode. A catalyst works as a separator of protons and electrons, which follow a different path to the cathode creating the flow of electrons and forms an electric circuit. The protons at the cathode react with the oxygen and form water and also liberate Heat

Promote Shore Power

Shore power can significantly reduce air emissions in ports, improving local air quality. In nearly all cases, shore power reduces total air and climate pollutant emissions compared with burning HFO and distillate; the level of reduction depends on the source of electricity. Connecting to shore power in port can significantly reduce BC emissions from ships at berth.

Way to Reduce the Emission of Black Carbon in the Arctic

The route which is currently used to follow the route for shipping can be used as a station where the ships are fuelled till they cross the arctic way so that the burned fuel is limited. Also, in the arctic, there should be a docking system that will make the navigation system much more transparent and more accessible so that navigators and the people or engineers who are present there can follow up on the count of black carbon as well as make the route clear while the ship goes for the check-up and logs check-up. Making everyone's work more accessible and smoother rather than colliding with each other, and for the route clearance, the docking people can make the follow-up route for the ships. The next port should get the ship refuelled as we have to consume that much fuel, which is comfortable for both of them.

Conclusions

Concerning the above study, we can tell that Black carbon's presence in nature is a bane to humanity, and significant work must be done to stop its emission. All the new technologies including Scrubbers, Diesel Particulate filers, Diesel Oxidation Catalyst and Hydrogen Fuel cells that are being introduced should be aimed to control black carbon emissions and eliminate the existing sources of this pollutant.

Maritime Sector causes huge amount of pollution, and therefore numerous reforms are to be applied to its organization to preserve nature and prevent its exploitation.

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4.	Refresher and Updating Training Course for all engineers	24 - 26

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7.	Bridge Manouervering & Engine Control - Operational Level	13 - 14, 27 - 28
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13.	Machinery Maintenance - Skill Enhancement - Module 3 (3/E)	03 - 06, 17 - 20, 31 - 03
14.	Machinery Maintenance - Skill Enhancement - Module 4 (2/E, C/E)	10 - 12, 24 - 26
15.	MSM - Module 1 (Occupational and Behaviour Based Safety)	05 - 07, 19 - 21
16.	MSM - Module 2 (Risk Assessment)	10
17.	MSM - Module 3 (Shipboard Safety Officers)	11
18.	MSM - Module 4 (Accident Investigation)	12


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Industry News

Report of IMO Sub-Committee on Implementation of IMO Instruments (III) – 9th Session

The IMO Sub-Committee on Implementation of IMO Instruments, commonly referred to as the III Sub Committee held its 9th session from July 31 to August 4, 2023 at the IMO headquarters in London. Because of the heavy workload of the IMO committees like MSC and MEPC, the ground work is increasingly being done by the Sub Committees who in turn prepare reports containing various amendments and additions to the existing regulations for consideration by the MSC and MEPC. The III Sub Committee in this session had under its consideration several critical areas, two of which can be listed out at the outset namely, Survey Guidance under the Harmonised System of Survey and Certification (HSSC) and Procedures for Port State Control inspection for use by Member state PSC inspectors. India took active part in the meetings of this Sub-Committee and a six Member delegation attended the session, which was held in remote hybrid mode, which is increasingly becoming popular in conducting IMO meetings. The delegation consisted of **Mr. Aniruddha Chaki, Mr. Nebu Oommen** and **Captain Harinder Singh** from DG Shipping and was supported by **Mr. Tapan K Sahu** and **Mr. S. Karthik** from Indian Register of Shipping and **Mr. Sunayan Sanatani** from The Great Eastern Shipping Co. Ltd. India had submitted two papers for consideration by this Sub-Committee, one on Multiple Load Line and associated statutory certification and another one on Docking Surveys and both were actively discussed by the designated working group for development of procedures for HSSC surveys.

This Brief provides an overview of the significant issues finalised at this session and the way forward for some of these regulations.

Finalising the 2023 HSSC Survey Guidelines

The needed revisions that were approved will update the HSSC Survey Guidelines to include relevant survey requirements for mandatory instruments due to enter into force up to and including December 31, 2023 and amendments to SOLAS which will enter into force on 1 January 2024. Requirements incorporated into this edition of the HSSC Survey Guidelines include:

1) MARPOL Annex VI:
   a. Acknowledgement of UNSP Barge exemption certificates
   b. Confirmation of updates to the SEEMP
   c. Confirmation of attained EEXI
   d. Verification of attained annual operational CII

2) SOLAS:
   a. New requirements on openings in shell plating, regulation II-1/15
   b. New requirements on water level detectors on multiple hold cargo ships, regulation II-1/25.1
   c. New requirements on launching of lifeboats while making headway at up to five knots in calm water, regulation III/33
   d. Updated references for numerous revised radiocommunication equipment standards associated with the modernisation of the GMDSS

Guidance on Remote Survey, Audit and Verification

The Sub-Committee finalised the first phase of its planned development of guidance on the assessment and applicability of remote surveys, ISM Code audits and ISPS Code verifications. Based on experience gained from the increased use of remote surveys and audits as a result of the COVID-19 pandemic, Member States have

generally recognised the benefits of remote surveys and are seeking to formalise guidelines for such surveys as their use expands.

At this session, the Sub-Committee finalised amendments to the *Survey Guidelines under the HSSC, 2021* (resolution A.1156(32)) to include a new section providing guidance on remote surveys, and finalised amendments to the *Revised Guidelines on the Implementation of the ISM Code by Administrations* (resolution A.1118(30)) to address use of remote methods for safety management audits. Both amended documents acknowledge the use of remote surveys / audits "under an extraordinary circumstance beyond the control of the parties" as well as "under normal circumstances". They also establish the role of the Flag Administration in determining the suitability of remote survey / audit techniques in a given situation. These amended documents also refer to additional guidance on this subject that has yet to be developed but will be the *Guidance on Assessments and Applications of Remote Surveys, ISM Code Audits and ISPS Code Verifications* that will be developed in the next phase of this work.

Finalising the 2023 Procedures for Port State Control

The Sub-Committee finalised amendments to the *Procedures for Port State Control, 2021* (PSC Procedures, A.1155(32)). The proposed amendments include expanded guidance on detainable deficiencies under MARPOL Annex VI, including:

1) Absence of valid IEE Certificate, EEDI Technical file or SEEMP
2) Non-compliant Fuel oil sulphur content
3) Absence of proper EGCS documentation (if applicable)

The Sub-Committee also agreed to include the *2022 Guidelines for Inspection of Anti-Fouling Systems on Ships* (resolution MEPC.357(78)) as a new appendix to the 2023 Procedures for PSC.

Next Steps: The draft 2023 Procedures for Port State Control will be subject to adoption at the 33rd session of the IMO Assembly (Dec. 2023).

Updates to Training for PSC Personnel

The Sub-Committee discussed work on revision of IMO Model Course 3.09 on PSC, to reflect the latest developments of relevant IMO instruments and reflect current practices and emerging technologies within the course.

Analysis of Marine Casualty Reports and Lessons Learned

The Sub-Committee received the report of an intersessional correspondence group in which 28 marine safety investigation reports were collected for analysis of both content and quality of reporting. Significant observations identified for follow-up actions are discussed further in the below sections.

Next Steps: The IMO Secretariat will be asked to publish a summary of 13 Lessons Learned from the analysis of reported marine casualties at this session of the Sub-Committee, for release on the IMO website.

Additionally, the Sub-Committee will request the IMO Secretariat to publish a III.3 circular (to complement the previously published III.3/Circ.9) to highlight for Administrations the areas in which reporting of marine casualties has in the past been incomplete or inappropriately addressed, with the objective of improving future marine safety investigation reports.

Safety Issues Associated with Unsatisfactory Implementation of Safety Management Systems

The Sub-Committee discussed recommendations made by the correspondence group based on the analysis of ISM Code-related findings on unsatisfactory implementation of safety management systems (SMS). The analysis was mainly aimed at finding common safety issues and whether the SMS has not been fully implemented. Observations from the analysis of these reports included:

1) A common safety issue was lack of risk assessment;
2) A majority of the cases indicated the SMS had not been fully implemented;
3) In many cases the ISM-related deficiency could have been detected during an inspection/audit; and
4) The problem was how the ISM Code is implemented; not with the ISM Code itself.

Next Steps: The Sub-Committee will recommend to MSC 108 (May 2024) to bring this information to the attention of the ILO / IMO Joint Tripartite Working Group (JTWG), also noting that the results of a study on the ISM Code are pending from the IMO Secretariat. Further work on this subject will be informed by that study.

Finalisation of III Code Implementation Guidance

The IMO Instruments Implementation Code (III Code) provides the criteria by which Member States are audited to determine their fulfilment of obligations as flag, coastal and port states. At this session, the Sub-Committee finalised the *III Code Implementation Guidance*, to assist Member States in the implementation of the Code and preparation for audits. The structure of this draft guidance is in two parts:

- Part A contains non-mandatory guidance on understanding and practices to assist Member States in the implementation of the III Code, aiming to enhance the overall performance in maritime safety and environment protection.
- Part B provides Member States with a manual to prepare for future audits under the IMO Member State Audit Scheme (IMSAS) and to assist in the planning, conducting and reporting in their duties.

The III Code Implementation Guidance will provide Member States with information on reoccurring findings and observations and providing guidance and best practices to be considered beneficial to Member States for both implementation of the III Code and audit preparation.

Reporting of Alleged Inadequacy of Port Reception Facilities

The Sub-Committee received the annual report consolidated by the IMO Secretariat to summarise reporting by Member States of inadequate port reception facilities (PRFs) encountered by their registered vessels. Each state that is a party to the MARPOL Convention is obligated to support compliance by providing adequate PRFs to serve in the proper disposal of ships' wastes, and the IMO Global Integrated Shipping Information System (GISIS) provides a module through which Member States may report alleged inadequacies of PRFs.

Guidance to Assist Competent Authorities in Implementation of the 2012 Cape Town Agreement

The 2012 Cape Town Agreement (2012 CTA) provides standards on the design, construction and equipment of fishing vessels and includes regulations designed to protect the safety of crews, providing a level playing field for a sector of the marine industry recognised as one of the most high-risk for seafarers.

The treaty will enter into force 12 months after at least 22 States with an aggregate of 3,600 fishing vessels of 24 m in length and over operating on the high seas have expressed their consent to be bound by it. As of today, 21 Member States have ratified the Agreement.

In anticipation of entry into force, at this session the Sub-Committee progressed work on guidance to assist competent authorities in the implementation of the 2012 CTA. The structure of this implementation guidance addresses the following:

1) Overview of the 2012 Cape Town Agreement
2) Application, surveys and certificates
3) Technical requirements for new and existing vessels
4) Technical requirements for new vessels only
5) Port State Control guidance
6) Casualties on fishing vessels

The extent to which the 2012 CTA will apply to existing vessels remains to be clarified

Next Steps: An intersessional correspondence group has been established to continue work and finalise this guidance. Discussions on this subject will continue in the intersessional correspondence group and at III 10 (July 2024).

The tenth session of the Sub-Committee has been tentatively scheduled to take place from 22nd to 26th July 2024.

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