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AIR POLLUTION AND ENERGY EFFICIENCY

Promoting the use of onshore power supply

Submitted by the Community of European Shipyards' Associations (CESA)

SUMMARY

Executive summary: Past discussions at MEPC on shore connection revealed major technical and market barriers that have now been eliminated. Mandatory deployment of onshore power supply in ports is set in Europe and in California and the international electrical standard is validated. This document proposes that the IMO should require ports and new-built vessels to use the international standard for connection to a shore power system.

Strategic direction: 7.3

High-level action: 7.3.2

Output: 7.3.2.1

Action to be taken: Paragraph 10

Related documents: MEPC 54/4/3; MEPC 55/4/6, MEPC 55/4/13; MEPC 59/4/11 and MEPC 68/INF.16

Introduction

1 The ability of ships to shut down their engines in port and connect to shore power represents an important tool in the efforts of ports to minimize air pollution. While receiving power from shore, ship emissions of all types, including NO_x, SO_x, and CO₂, are eliminated from the port area. Shore power is also known by other terms including "cold ironing" and Onshore Power Supply (OPS).

2 MEPC 54 considered a proposal from Germany and Sweden (MEPC 54/4/3) on standardization of onshore power supply connections for ships in ports. MEPC 54 agreed that standardized power supply connections could benefit the industry but that more information and further studies were needed before any decision could be made and instructed the Secretariat to liaise with relevant international and intergovernmental organizations and report

back to MEPC 55. MEPC 55 considered a report from the Secretariat (MEPC 55/4/6) and two submissions commenting on the report (MEPC 55/4/13 by Sweden and MEPC 55/4/10 by IMarEST).

3 Noting the development of OPS as a possible compliance strategy for meeting the requirements under MARPOL Annex VI and concerns expressed at MEPC 54 about the safety of onshore power supply, a draft regulatory text for inclusion in MARPOL Annex VI was proposed by Sweden (MEPC 55/4/13, annex). MEPC 55 agreed that a global standard would benefit the shipping industry and welcomed the finalization of such a standard. However, the Committee also agreed that there were still technical issues to be solved and that the Committee should wait until the standard was finalized before any decision for including a regulation in MARPOL Annex VI should be taken (MEPC 55/23, paragraph 4.18).

4 Shore connection has been included in Californian regulation (CARB). By 2020, 80% of the source of vessels power must come from OPS. In 2014 in the European Directive 2014/94/EU on the Deployment of Alternative Fuel Infrastructure obliges European ports to progressively equip their berths with shore connection to have all ports equipped by 2025 under some conditions.

5 In 2012 the Ministry of Transport of China has set a technical code (JTS155-12) stating that OPS should be included in design and construction of new container, bulk, cruise and RoPax terminals construction.

6 Several countries have implemented funding programs for developing OPS in ports, such as Canada (through Shore Power Technology for Ports program-SPTP) or Europe (through Connecting Europe Facility funding scheme). Tax reduction on electricity used by vessels can be applied by European countries as per Directive 2003/96/EC.

7 However, despite strong efforts from regulators to ensure that an increasing number of ports offer OPS, there is no regulation to mandate new built vessels to be OPS ready. Preparing a vessel for shore connection at construction stage is done easily with minor extra costs. An incoming switchgear and synchronizing relay can be included in the main switchboard, as well as a dedicated switchboard and a junction box, representing from 1 to 10% of the whole on board electrical installation costs.

8 An increasing number of ships are fitted with connections for on-shore power supply, and an appropriate international standard exists. Including a requirement to ports and terminals to make use of the international standard will eliminate the technical problems with different standards for ships calling at different ports. A requirement should be included in MARPOL Annex VI as the appropriate instrument to regulate prevention of air pollution from international shipping.

9 One of the main issues previously addressed is the advantage of using a standardized connection system at the quay side for ships to connect to an OPS. A similar requirement for new ships to be prepared for making such connections and to use the same international standard for any OPS systems installed would ensure compatibility in the future.

Action requested of the Committee

10 The Committee is invited to consider the above and take action as appropriate.