INTERNATIONAL MARITIME ORGANIZATION

E

MARINE ENVIRONMENTAL PROTECTION COMMITTEE
82nd session
Agenda item 9

MEPC 82/9/7
9 August 2024
Original: ENGLISH
Pre-session public release: ☒

REDUCTION OF UNDERWATER RADIATED NOISE FROM COMMERCIAL SHIPPING

Comments on document MEPC 82/9/2

Submitted by FOEI, WWF, IFAW, Pacific Environment and CSC

SUMMARY

Executive summary:	This document comments on document MEPC 82/9/2 and summarizes available resources and information to assist the shipping industry with uptake of the *Revised guidelines for the reduction of underwater radiated noise from shipping to address adverse impacts on marine life* (MEPC.1/Circ.906) and is also submitted as a contribution to the EBP for the Revised Guidelines.
Strategic direction, if applicable:	1
Output:	1.16
Action to be taken:	Paragraph 16
Related documents:	MEPC.1/Circ.906, MEPC.1/Circ.907; MEPC 80/17; MEPC 82/9, MEPC 82/9/1, MEPC 82/9/2 and SDC 8/14/2

Introduction

1 This document is submitted in accordance with the provisions of paragraph 6.12.5 of the *Organization and method of work of the Maritime Safety Committee and Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.5) and responds to the invitation presented in document MEPC 82/9/2 (ICS et al.) to provide "any suggestions from the Committee with respect to how it can more effectively facilitate URN reduction and support the objectives of IMO during the EBP of the *Revised guidelines for the reduction of underwater radiated noise from shipping to address adverse impacts on marine life.*"

2 The Committee, at its 80th session, approved the *Revised Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life* (MEPC.1/Circ.906) (Revised Guidelines), which went into effect on 1 October 2023, as well as the *Guidelines for underwater radiated noise reduction in Inuit Nunaat and the Arctic* (MEPC.1/Circ.907) (Inuit Nunaat Arctic Guidelines), which were circulated by the Secretariat on 3 October 2023. The Committee also invited Member States and international organizations to submit lessons learned and best practices in the implementation of the Revised Guidelines by MEPC 85, as part of an experience-building phase (MEPC 80/17, paragraph 10.4; MEPC 82/9, paragraph 4.4).

3 Document MEPC 89/2 (Secretariat), paragraph 6, identifies the action requested of the Committee; the co-sponsors support the actions requested in paragraphs 6.1 to 6.6 and 6.8, and welcome the opportunity to support the Committee in advancing these actions.

4 Additionally, the co-sponsors are engaged in outreach to shipping companies and other stakeholders to help raise awareness of, and to encourage and support the uptake of, the Revised Guidelines. As one example, IFAW convened a Shipping Roundtable in partnership with the Mediterranean Shipping Company, held on 9 July 2024 in Geneva, which included a session on uptake of the Revised Guidelines.

5 The co-sponsors have observed that shipowners and other stakeholders regularly ask where to find available resources and information to assist the industry in the implementation of the Revised Guidelines and to reduce underwater radiated noise (URN) from shipping more generally. To assist others in answering such queries, and to address the invitation in document MEPC 89/9/2, this document describes some resources that can assist industry uptake of the Revised Guidelines, recognizing that new resources and information are coming online regularly.

Information to support industry uptake of the Revised Guidelines

6 The Revised Guidelines are based on the process of underwater noise management planning that begins with baselining a ship's URN profile, setting URN targets, evaluating which measures could be implemented to meet the URN target, measuring the URN profile with measures in place, and adapting as needed.

Baselining ship URN

7 To establish a ship's baseline URN levels, the Revised Guidelines note that it is preferable to follow standardized measurement protocols, and a full list of available measurement standards are included in appendix 1 of the Revised Guidelines. Predictions of URN and onboard measurements can also be informative.

8 When it is not feasible or desired to undertake comprehensive measurements of URN that fully comply with ISO standards (e.g. ISO 17208-1:2016 for deep water), measurement opportunities to establish a ship's baseline URN level on a more opportunistic basis exist in certain geographic areas. Such measurement stations can also provide shipowners and operators with initial feedback on how implementation of various measures might reduce URN, by comparing baseline URN levels against URN levels with reduction measures in place. The co-sponsors are aware of the following locations where measurements of URN levels of a ship can be requested:

.1 Quiet Oceans Underwater Radiated Noise Catalogue (Genoa, Italy): https://urn.quiet-oceans.com/

.2 Boundary Pass Underwater Listening Station (British Columbia, Canada): measurement data can be requested by contacting Transport Canada (TC.QuietShips-Navieressilencieux.TC@tc.gc.ca) or the ECHO program (ECHO@portvancouver.com).

.3 Channel Islands National Marine Sanctuary, Santa Barbara Channel (California, USA): measurements can be arranged for a fee, contact Vanessa Scott (vscott@ucsd.edu).

.4 Long-term Measurement of Ocean Soundscapes (LMOS, Nunavut and Nunatsiavut, Canada): measurements can be arranged for a fee, contact Joshua Jones (j8jones@ucsd.edu).

.5 Marine Acoustic Research Station (MARS, https://www.projet-mars.ca/en) (St. Lawrence Estuary, Quebec, Canada): measurements can be arranged for a fee, contact Prof. Pierre Cauchy (Pierre_Cauchy@uqar.ca).

Setting URN targets

9 Approaches for setting appropriate URN targets for ships is a key topic area for the experience-building phase both for new and existing ships. For new builds, setting URN objectives for ship design has not been common practice, but needs to become so. A key finding of the IMO Expert Workshop on Energy Efficiency and Underwater Radiated Noise noted that "the most promising opportunities for optimizing energy efficiency gains and achieving GHG and URN reductions are in the early design stage." Quieter ships can and have been built, but shipowners must identify this as an objective at the outset.

10 The Revised Guidelines note that URN targets can be established by the adoption of one of the classification societies' sets of URN-related rules, commonly referred to as a Quiet Ship notation. At present, there are at least seven classification societies that have developed rules to achieve a Quiet Ship notation, including (in alphabetical order) American Bureau of Shipping, *Guide for the Classification Notation Underwater Noise and External Airborne Noise, June 2024;* Bureau Veritas, *Underwater Radiated Noise (URN);* China Classification Society, *Guidelines for underwater radiated noise of ships 2018;* Det Norske Veritas (DNV), *SILENT class notations;* Korean Register, *Underwater Radiated Noise notation;* Lloyd's Register, *Underwater Radiated Noise (UWN-L) notation; and* Italiano Navale, *DOLPHIN notation.*

Available measures to meet URN targets

11 The Revised Guidelines identify and provide guidance on a number of URN reduction approaches, which span design, technical, maintenance, and operational options. Beyond the Guidelines, several informative reports are available that elaborate on the efficacy, relative cost, and technical readiness of URN reduction approaches, as well as the overlap of various approaches with energy efficiency and GHG reduction objectives. These include:

.1 Ship Energy Efficiency and Underwater Radiated Noise and the related Technology Matrix (available for download from this IMO webpage: https://www.imo.org/en/About/Events/Pages/URN-Workshop-2023.aspx).

.2 Ship Underwater Radiated Noise, Report 368-000-01, Vard Marine, July 2019: https://publications.gc.ca/collections/collection_2021/tc/T29-151-2019-eng.pdf

.3 Compendium on Underwater Noise from Commercial Shipping (SDC 8/14/2).

.4 Best Available Technology (BAT) and Best Environmental Practice (BEP) for Mitigating Three Noise Sources: Shipping, Seismic Airgun Surveys, and Pile Driving – Technical Series No. 46, CMS: https://www.cms.int/en/publication/best-available-technology-bat-and-best-environmental-practice-bep-mitigating-three-noise

Actions the industry can take to support URN reduction

12 In response to questions that have arisen as to what shipping companies can do immediately to reduce underwater noise from shipping, the co-sponsors suggest the actions in paragraphs 13 to 15 below.

13 Make URN reduction of company fleets a corporate sustainability goal (e.g. as part of the EU's Corporate Sustainability Reporting Directive). This could include commitments to:

.1 Develop and implement a noise management plan for all ships operated by the company. The Revised Guidelines offer templates for such plans, and classification societies can help develop these plans.

.2 When planning retrofits or receiving new builds that include technologies related to reducing GHG emissions, commit to including URN as an objective for such retrofits and to measuring the ships' URN levels (including before retrofits). This data could be shared as part of the Committee's experience-building phase on URN, to help increase understanding of the relationship between GHG, EE, and URN-related measures.

.3 Ensure voyage planning incorporates Indigenous Knowledge as appropriate and allows for ships to avoid sensitive areas and cooperate with voluntary ship speed reduction programmes, many of which are identified in the World Shipping Council's Whale Chart (https://www.worldshipping.org/whales). Other voluntary ship slowdowns in place specifically to reduce underwater noise impacts on vulnerable species include Admiralty Inlet and north Puget Sound[1] (USA) and Haro Strait and Boundary Pass (Canada).[2]

.4 For operators in Arctic waters, review and follow the *Guidelines for underwater radiated noise reduction in Inuit Nunaat and the Arctic* (MEPC.1/Circ.907).

.5 Pursue actions that qualify for recognition in incentive programmes that have been developed to reduce URN. Examples of incentive programmes include Port of Vancouver's EcoAction Program, Noise Ship Index and Green Marine Underwater Noise Reduction performance indicator.

.6 Assess the routes and ships operated by the company for the potential to use wind power to help meet CII requirements and reduce URN.

14 As an overall operational measure, set a speed reduction target for the fleet to achieve reductions in fuel consumption, underwater noise and risks of collisions with marine life. Encourage ports to develop systems that minimize waiting times for port-bound ships that have committed to reduced speeds.

15 For new builds, commit to including URN limitation as a specified design objective.

Action requested of the Committee

16 The Committee is invited to note the information in paragraphs 6 to 15 as a contribution to the experience-building phase of the *Revised guidelines for the reduction of underwater radiated noise from shipping to address adverse impacts on marine life* (MEPC.1/Circ.906).

---

1 For more information, visit Quiet Sound at www.quietsound.org

2 For more information, visit ECHO Program at https://www.portvancouver.com/environmental-protection-at-the-port-of-vancouver/maintaining-healthy-ecosystems-throughout-our-jurisdiction/echo-program/projects/