

SUB-COMMITTEE ON SHIP DESIGN AND  
EQUIPMENT  
56th session  
Agenda item 10

DE 56/10/11  
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**DEVELOPMENT OF A MANDATORY CODE FOR SHIPS OPERATING  
IN POLAR WATERS**

**Incineration in polar waters**

**Submitted by Friends of the Earth International (FOEI), the Clean Shipping Coalition (CSC), the International Fund for Animal Welfare (IFAW), the World Wide Fund for Nature (WWF) and Pacific Environment**

**SUMMARY**

*Executive summary:* In this document, FOEI, CSC, IFAW, WWF, and Pacific Environment recommend inclusion of a provision in the Polar Code restricting shipboard incineration in polar waters

*Strategic direction:* 5.2

*High-level action:* 5.2.1

*Planned output:* 5.2.1.19

*Action to be taken:* Paragraph 12

*Related documents:* DE 53/18/3; DE 56/10/1 and DE 56/INF.3

**Introduction**

1 This document<sup>1</sup> is submitted in accordance with the provisions of paragraph 6.12.5 of the Guidelines on the organization and method of work of the Committees and their subsidiary bodies (MSC-MEPC.1/Circ.4) and provides comments on the report of the correspondence group (DE 56/10/1).

**Proposal for an environmental protection chapter for inclusion in the Polar Code**

2 The co-sponsors welcome document DE 56/10/1, including at annex 1, a draft text for the Polar Code's environmental protection chapter, which will contribute to further discussions of this topic at DE 56. The co-sponsors also welcome document DE 56/INF.3, the report of the hazard identification workshop in support of the development of the environmental aspects of the Polar Code.

<sup>1</sup> The preparation of this document for the IMO's DE Sub-Committee was assisted by the Antarctic and Southern Ocean Coalition (ASOC), an umbrella NGO with expert observer status at the Antarctic Treaty Consultative meetings (ATCM) and meetings of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).

3 Most of the environmental protection measures in place currently were developed with temperate or tropical waters in mind since this is where the bulk of shipping traffic operates. Recently, as the volume and nature of shipping traffic in polar waters has increased and the significant decrease in ice extent means that even greater volumes of traffic are likely to use polar waters, it is necessary to consider the additional measures required to appropriately protect polar waters which demonstrate a greater sensitivity to a range of harmful substances arising from vessels.

4 Co-sponsors believe that, on a per capita basis, more shipboard incineration likely occurs in polar waters than in other marine waters because areas within the polar regions have few if any waste reception facilities. Since offloading of waste therefore is more problematic or impracticable in polar regions, incinerating garbage, sludge oil, sewage sludge, plastic, etc. aboard the vessel is considered a primary waste treatment option.

### **Environmental impact from incineration in polar regions is difficult to discern**

5 While testing standards are applicable to incineration units used on board vessels (see MARPOL Annex VI, resolution MEPC.93(45), resolution MEPC.76(40)), information pertaining to the actual nature and extent of air emissions from shipboard incineration on a per ship and regional basis is not readily available. Therefore the true extent of environmental impact related to these emissions is difficult to determine. However, we do know that incineration produces harmful emissions, such as furans, dioxins, polycyclic aromatic hydrocarbons (PAHs), heavy metals (e.g. mercury), hydrochloric acid, and black carbon.<sup>2</sup> These substances, when emitted from vessels, can enter the marine environment as well as impact human health. This is particularly worrisome as significant amounts of persistent organic pollutants are already present in the Arctic—gravitating toward the region from southern latitudes—and appear at high levels in residents and certain large marine mammals.<sup>3</sup>

### **State attempts to restrict shipboard incineration**

6 Because of the environmental and public health threats posed by incineration, several governments have taken steps to control these emissions. For example, the State of California in the United States prohibits cruise ships and other oceangoing vessels from conducting onboard incineration within its waters.<sup>4</sup> Moreover, Norway's Svalbard Environmental Protection Act, which applies to waters 12 nm from Svalbard's coastline, prohibits waste incineration.<sup>5</sup>

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<sup>2</sup> See Just Cruising? Environmental effects of cruise ships, *Office of the PARLIAMENTARY COMMISSIONER FOR THE ENVIRONMENT Te Kaitiaki Taiao a Te Whare Pāremata*, New Zealand, 13 (2003), available at [http://www.pce.parliament.nz/assets/Uploads/Reports/pdf/just\\_cruising.pdf](http://www.pce.parliament.nz/assets/Uploads/Reports/pdf/just_cruising.pdf); see *infra* note 4.

<sup>3</sup> See e.g., L. Ritter et al., A Review of Selected Persistent Organic Pollutants, for the IPCS (1995), available at [http://www.who.int/ipcs/assessment/en/pes\\_95\\_39\\_2004\\_05\\_13.pdf](http://www.who.int/ipcs/assessment/en/pes_95_39_2004_05_13.pdf).

<sup>4</sup> California Air Resources Board, Staff Report: Initial Statement of Reasons for the Proposed Airborne Toxic Control Measure for Cruise Ship Onboard Incineration, iv, (2005), available at <http://www.arb.ca.gov/regact/csoi/isorcomp.pdf>.

<sup>5</sup> A. Evenset and G. Christensen, *Environmental impacts of expedition cruise traffic around Svalbard*, prepared for Association of Arctic Expedition Cruise Operators, Akvaplan-niva AS Report: 4823-1, 52, (2011), available at <http://www.aeco.no/documents/Finalreport.pdf>.

## Options for addressing shipboard incineration in the Polar Code

7 Current IMO regulations regarding shipboard incineration provide some restrictions (e.g. polychlorinated biphenyls, or PCBs) and special protocols for the burning of certain harmful substances. However, we believe that enhanced standards are warranted for polar waters, and therefore request that hazardous substances are not incinerated aboard vessels in polar waters. We also ask that shipboard incinerators on vessels operating in polar waters be equipped with effective air pollution control devices.

8 Likewise spatial restrictions on shipboard incineration are quite limited.<sup>6</sup> Regulation 16.4 (MARPOL Annex VI) states: "Shipboard incineration of sewage sludge and sludge oil generated during normal operation of a ship may also take place in the main or auxiliary power plant or boilers, but in those cases, shall not take place inside ports, harbours and estuaries." Outside of this limited exception, shipboard incineration is presumably allowed without spatial restriction in polar waters, apart from any national standards (e.g. Norway).

9 Therefore, in light of the above information, and consistent with the application of the precautionary approach,<sup>7</sup> it would seem prudent to enact some type of spatial restriction on shipboard incineration in polar waters to protect public health and the marine environment. We request that a ban be considered for shipboard incineration in Code waters within a certain distance from land and ice. We believe that, at a minimum, this ban should extend 12 nm from coastlines and ice.

10 In addition, ship operators and owners should make every effort possible to minimize waste produced on board. Methods such as digesting and compacting, among others, should be considered to achieve this objective.

11 Moreover, article 5 of the 1996 Protocol to the London Convention on ocean dumping provides strong support for restricting shipboard incineration in polar waters.<sup>8</sup> That Protocol contains a ban on ocean incineration beyond internal State waters, with the prohibition encompassing all waste and other matter, including industrial waste and sewage sludge. States that have ratified (currently 41) the instrument should act consistently with the principles of the 1996 Protocol, and include appropriate measures on shipboard incineration in the Code.

## Action requested of the Sub-Committee

12 The Sub-Committee is invited to consider co-sponsors' proposals in paragraphs 7 through 10, and include a provision in the Polar Code further restricting shipboard incineration in polar waters.

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<sup>6</sup> A 2003 report to the California legislature, summarizing MARPOL Annex V, noted that "the state of the art in marine incinerators is not highly advanced, primarily because the technology has not yet been subject to constraints either on air emissions or on the types of materials that could be incinerated. It states that marine incinerators in current use do not include any provision for air pollution control. It further advises that the use of incinerators in urban areas should be discouraged because their use will add to possible air pollution in these areas. MARPOL does not prohibit the use of incinerators in port areas." Cruise Ship Environmental Task Force, Regulation of Large Passenger Vessels in California, a report to the California legislature, 56 (2003), available at:

[http://montereybay.noaa.gov/resourcepro/resmanissues/pdf/CA\\_cruise%20ship\\_rept.pdf](http://montereybay.noaa.gov/resourcepro/resmanissues/pdf/CA_cruise%20ship_rept.pdf).

<sup>7</sup> Guidelines on the Incorporation of the Precautionary Approach in the Context of Specific IMO Activities, resolution MEPC.67(37), adopted 15 September 1995.

<sup>8</sup> "Contracting Parties shall prohibit incineration at sea of wastes or other matter." 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matter, Art. 5, 1972.