

SUB-COMMITTEE ON POLLUTION  
PREVENTION AND RESPONSE  
7th session  
Agenda item 14

PPR 7/14/2  
13 December 2019  
Original: ENGLISH  
Pre-session public release:

**DEVELOPMENT OF MEASURES TO REDUCE RISKS OF USE AND CARRIAGE  
OF HEAVY FUEL OIL AS FUEL BY SHIPS IN ARCTIC WATERS**

**Results of the impact assessment carried out by the  
Russian Federation and proposed factors**

**Submitted by the Russian Federation**

**SUMMARY**

*Executive summary:* The document contains the summary of results of the impact assessment carried out by the Russian Federation pursuant to the invitation by PPR 6, and outlines the factors to be taken on board as part of further work on the development of a potential ban to use and carry for use of HFO in the Arctic waters

*Strategic direction, if applicable:* 6

*Output:* 6.11

*Action to be taken:* Paragraph 20

*Related documents:* PPR 6/WP.6, PPR 6/12/2, PPR 6/20; and PPR 7/INF.13

**Introduction**

1 MEPC 72 instructed the PPR Sub-Committee to develop a ban on HFO for use and carriage as fuel by ships in Arctic waters (hereinafter referred to as "the ban"), on an appropriate timescale, on the basis of an assessment of impacts.

2 PPR 6 finalized the impact assessment methodology. The methodology contained, inter alia, a step to develop factors that could either ameliorate adverse impacts of a ban or accommodate specific situations. PPR 6 further invited interested parties, in particular Arctic States, to carry out impact assessment guided by, but not limited to, the above mentioned methodology and to present the submissions to PPR 7.

3 The Russian Federation has completed an impact assessment on the basis of, but not limited to, the methodology agreed at PPR 6 and its results are presented in document PPR 7/INF.13.

4 This document contains the executive summary and conclusions made as a result of the impact assessment, as well as the list of factors aimed at mitigating the adverse impacts of the potential ban. The proposed factors have been developed on the basis of and taking into account the conditions and specifics of shipping in the Russian Arctic, important socio-economic aspects and demographic situations in that part of the Russian Federation.

### **Executive summary of the impact assessment**

5 The assessment was directed towards the following study areas: industries and services of the Arctic region dependent on the supply of goods by ships that use HFO; population of the Arctic and adjacent areas; existing ship traffic routes and patterns; coastal and marine ecosystems that could be affected by HFO spill; and comprehensive measures taken at the national level and aimed at reducing the risk of marine incidents in the Arctic waters.

6 As part of the research, the following aspects have been reviewed in detail: shipping intensity in the Arctic waters, including the number of ship calls to the Arctic ports; the volume of HFO used by ships; the possibilities for the fleet to switch to distillate fuel; forecasted growth of fuel expenses and the rise of cargo transportation costs.

7 The assessment has been carried out to understand the potential economic losses related to the investments made by the Russian Federation into infrastructure with the aim of reducing or eliminating risks of HFO spills.

8 In addition, consequences of the potential ban have been assessed in respect of the activities related to export of mineral resources from the Arctic zone of the Russian Federation. The results revealed substantial economic losses due to the increase of cargo transportation costs when switching to more expensive alternative fuels.

9 One of the main tasks of the research has been the assessment of the impact of the potential ban on local populations, including indigenous communities that bear the unique culture and are most vulnerable due to economic or ecological changes in the Arctic.

10 The major risks for the population relate primarily to the increase in the costs of the "Northern Supply"<sup>1</sup>, which is aimed at ensuring the subsistence of people who live in isolated and hardly accessible areas.

11 The number of people dependent on the Northern Supply is a major social and humanitarian implication in the context of the assessment of the impacts of the ban. According to the data available, 11 territorial entities in the Russian Federation are being supplied by marine transport using HFO, with an overall population of 1.2 million, 148,000 of them represent native indigenous people.

12 On average, the increase of the Northern Supply cost is estimated to be 16% of the minimum monthly wage. With the inflation rate around 4.5%, such an increase is considerable.

13 The age of ships engaged in the transportation of cargoes as part of the Northern Supply is in most cases above 10 years. Most of those ships' fuel systems were not primarily designed for constant use of distillate fuels or fuels other than HFO, i.e. in case of the ban, those ships would be decommissioned and it would not be possible to substitute those ships with new ships in time.

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<sup>1</sup> The "Northern Supply" is a comprehensive system of shipments by sea carried out on seasonal basis for distant and isolated communities and industries (including raw materials, heating oil, diesel fuel, wood, commodities, food, industrial goods, etc.) that can be supplied ultimately by marine transportation.

14 From the point of the impact assessment, the important indicator is the categorization of the population of the Russian Arctic by types of activities. The results of the research demonstrate that 93-94% of the indigenous people are integrated into common economic activities and are not engaged in traditional ways of subsistence and harvesting of marine resources.

15 The table below contains the main results of the impact assessment as concerns the monetary aspects.

Type of costs	Cost increase (billion RUB) <sup>2</sup>
<b>One-time costs</b>	
Ship retrofitting costs	4.98
Economic losses due to investments into Arctic infrastructure	0.24
Total one-time costs	5.22
<b>Annual costs</b>	
Fuel costs increase (including purchasing marine fuel for the needs of "Marine Rescue Service")	30.30
The increase in the cost of mineral resources transportation	2.51
The increase in the cost of goods importation for the population (Northern Supply)	5.3
Increased costs for the construction and operation of the Arctic infrastructure and fleet	0.56
Total annual costs	38.67
<b>GRAND TOTAL</b>	<b>43.89</b>

16 Thus, the overall increase in costs for the Russian Federation in case of the introduction of the HFO ban will amount to a one-time cost of 5.22 billion RUB (80.48 million US\$) and subsequently 38.67 billion RUB (596.23 million US\$) annually, meaning 43.89 billion RUB (676.71 million US\$) for the first year.

#### **Factors to be taken into account as part of the development of the ban**

17 The results of the impact assessment endorsed the concerns that the ban would negatively affect the local communities and industries of the region, while the potential benefits of the ban remain unclear on account of national measures to reduce the risk of HFO spills. In that respect, the Russian Federation considers it impractical to develop the ban. At the same time, taking into account IMO's decisions on that matter, the following factors should be taken into account in the course of further work related to the ban:

- .1 **Ships engaged in ensuring the safety of ships or in a search and rescue operation should be excluded from the application of the ban. When prior operations have included the use or carriage for use of HFO (for all ships), the cleaning or flushing of tanks or pipelines is not required.** Similar exclusions have been introduced in regulation 43 of MARPOL Annex I (*Special requirements for the use or carriage of oils in the Antarctic area*) and should be applied for the Arctic.
- .2 **Ships in compliance with section 1.2 (Structural requirements) of Chapter I (Prevention of Pollution from Oil) of Part II-A (Pollution Prevention Measures) of the Polar Code or ships with fuel tanks protected by double hull, cofferdams or water ballast tanks should be excluded from**

<sup>2</sup> The average yearly exchange rate according to the Central Bank of the Russian Federation for the period of 11 months of 2019 was 64.8574 Russian Roubles (RUB) to 1 USD.

**the application of the ban.** Those are Category A and B ships constructed on or after 1 January 2017. The relevant Polar Code structural requirements were developed for the purpose of providing additional structural protection against potential pollution by fuel or cargo for new ships. The enforcement of a ban against such ships or ships constructed before 1 January 2017 with similar structural arrangements clearly represents an example of excessive regulation and does not seem reasonable.

- .3 **Taking into account the sources of hazards as referred to in paragraph 3 of the introduction to the Polar Code, the coastal State should be given the right to define geographical areas that would be excluded from the application of the ban subject to certain conditions.** The conditions for such areas could be as follows: navigation in ice-free water, during certain periods of time or seasons, availability of ice and weather forecast, icebreaker assistance, remoteness from the wildlife reserves and particularly vulnerable areas, availability of hydrographic information, surveyed shipping routes, availability of VTS, other national measures to reduce the risk of accident, etc.
- .4 **The Administration should be given the right to exclude ships on domestic voyages, older than 10 years, with fuel systems not primarily designed for constant use of distillate fuels or fuels other than HFO.** This factor has clear socio-economic and humanitarian implications. It would ensure consistent supply of northern remote communities and industries by the existing supply fleet, meanwhile older ships will be gradually phased out and replaced by new ships, without hampering the provision of the Northern Supply. In addition, a suitable phase-out schedule for old ships could be developed, in a similar manner as, for example, phasing-out of single hull tankers.

18 The Russian Federation considers that the factors above would allow mitigation, to the maximum extent, the negative adverse impacts of the ban to local communities and industries of the area. At the same time, the overall efficacy of a ban would not be substantially affected and would be offset through the implementation of additional measures at the national level by the Arctic States in order to reduce the risk of HFO spills.

19 Despite the fact that the ban is being developed by the global regulator, it has a clear regional focus and affects primarily the interests of the Arctic States. With that in mind, the Russian Federation would like to reiterate its understanding as reflected in paragraph 16 of document PPR 6/12/2 (Russian Federation) and supported by the plenary, namely, that the ban should be worked out by IMO only with due and unconditional account of the particular factors of each Arctic State, identified in the course of the impact assessments carried out by them. The Russian Federation assumes that such an approach would ensure adequate protection of rights and interests of States and their populations, which is the primary goal of any regional regulatory measure.

#### **Action requested of the Sub-Committee**

20 The Sub-Committee is invited to consider the information provided and in particular, to take into account the factors outlined in paragraph 17 above, in the course of further work related to the development of the ban.