

New consultation – proposed Regulation concerning amendments to Regulations of environmental safety for ships and mobile offshore units

1. Introduction

The Norwegian Maritime Authority (NMA) refers to the consultation on the proposed Regulation concerning amendments to the Regulations on environmental safety for ships and mobile offshore units which was sent for review on 4 June 2018. The proposal included separate rules regarding emissions to air and discharges to sea in the Norwegian world heritage fjords. The NMA proposed, among other things, the same sulphur requirements as in emission control areas (ECAs) for the entire world heritage fjord area, stricter requirements for NO_x emissions, prohibition against the discharge of sewage, regulations on the use of exhaust gas cleaning systems and requirement for an environmental instruction.

We have received several consultative statements, and looking through these has made us conclude that there is a need for some new changes. The proposed amendments will be circulated for review, and since the background is known, the deadline is set to six weeks.

In this new consultation, we are proposing some additional elements. We are proposing that fuel being used when the ship is in the world heritage fjords must have a sulphur content of maximum 0.10% by weight. Furthermore, the proposed amendments include a prohibition against the use of exhaust gas cleaning systems in the world heritage fjords. The prohibition against the use of exhaust gas cleaning systems applies to both open, closed and hybrid systems. We are also proposing a prohibition against incineration of waste on board ships in the world heritage fjords. Moreover, we are proposing that the NMA, upon written application from a company, may grant exemption for a ship from the Tier I requirements set out in MARPOL regulation VI/13, if it can be documented that the ship will comply with the Tier III requirements not later than 1 January 2022.

These amendments are intended to enter into force on 1 January 2019.

Comments to the proposal can be submitted to the NMA on e-mail to post@sdir.no by **7 December 2018**. The consultation will also be published on our website www.sdir.no.

In the proposed Regulations, the proposed amendments which were circulated for review on 4 June 2018 are indicated in grey, whereas the new proposed amendments are written in black. If the amendments are laid down, other parts of the text will have to be amended, here indicated by strikethrough.

2. Contact persons

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3. Details on the proposed amendments

3.1 Proposal that fuel being used when the ships are in the world heritage fjords shall have a sulphur content of maximum 0.10% by weight, and proposal to prohibit the use of exhaust gas cleaning systems

We are proposing that fuel being used when the ships are in the world heritage fjords must have a sulphur content of maximum 0.10% by weight. We are proposing to prohibit the use of exhaust gas

cleaning systems as an equivalent solution to meeting the sulphur requirements in the world heritage fjords. The prohibition against the use of exhaust gas cleaning systems applies to both open, closed and hybrid systems. The proposed amendments are set out in a new section 14b and will replace the wording of the section 14b that was circulated for review on 4 June 2018.

3.1.1 Reason for the proposal

As referred to in the consultation of 4 June 2018, the NMA's report "Discharges and emissions from ships in fjord areas with heavy cruise traffic" of 5 May 2017 showed, inter alia, that the level of nitrogen oxides (NO_x) in the air is a periodic issue, depending on meteorological conditions and the number of ships. In some cases, incidences of high levels of particulate matter (especially small particles) have also been found in the areas. In periods, the port calls also lead to visible smoke clouds consisting of particulate matter, NO_x, sulphur oxides (SO_x) and water vapour.

We would like to underline that these proposed regulations apply to the world heritage fjords only. The world heritage fjords are of exceptional value. In 2005, the West Norwegian Fjords, i.e. the five fjords the Nærøfjord, Aurlandsfjord, Geirangerfjord, Synnøvsfjord and Tafjord, were inscribed on UNESCO's World Heritage List. The two fjord districts, henceforth called the Geirangerfjord area and the Nærøfjord area, are situated 120 km apart and are geologically speaking examples of classic fjord landscapes. They show how the landscape has evolved from the last ice age up until today.

For the West Norwegian Fjords, the inscription is based on fulfilment of two selection criteria: 1) natural beauty and 2) geology. The following is the basis for inscription on the World Heritage List:

Criterion (vii): *The Geirangerfjord and Nærøfjord areas are considered to be among the most scenically outstanding fjord areas on the planet. Their outstanding natural beauty is derived from their narrow and steep-sided crystalline rock walls that rise up to 1400 m direct from the Norwegian Sea and extend 500 m below sea level. Along the sheer walls of the fjords are numerous waterfalls while free-flowing rivers run through deciduous and coniferous forest to glacial lakes, glaciers and rugged mountains. There is a great range of supporting natural phenomena, both terrestrial and marine such as submarine moraines and marine mammals. Remnants of old and now mostly abandoned transhumant farms add a cultural aspect to the dramatic natural landscape that complements and adds human interest to the area.*

Criterion (viii): *The West Norwegian Fjords are classic, superbly developed fjords, considered as the type locality for fjord landscapes in the world. They are comparable in scale and quality to other existing fjords on the World Heritage List and are distinguished by the climate and geological setting. The property displays a full range of the inner segments of two of the world's longest and deepest fjords, and provides well-developed examples of young, active glaciation during the Pleistocene ice age. The ice- and wave-polished surfaces of the steep fjord sides provide superbly exposed and continuous three-dimensional sections through the bedrock. The record of the postglacial isostatic rebound of the crust and its geomorphic expression in the fjord landscape are significant, and represent key areas for the scientific study of slope instability and the resulting geohazards.*

Norway are committed to ensuring that the world heritage site the West Norwegian Fjords is not exposed to harm or influences threatening the outstanding universal values that formed the basis for the inscription on the World Heritage List.

Several consultative bodies have commented that it is not desirable that ships use heavy fuel oil and exhaust gas cleaning systems in the world heritage fjords. During the summer of 2018, the NMA has received reports of pollution of the sea in the form of soot particles and foamy/oily discharges from exhaust gas cleaning systems. These discharges might not be hazardous, but are still undesirable. The world heritage fjords are regarded as threshold fjords with limited water exchange. Therefore, they are prone to accumulation of heavy metals.

Upon request from the NMA, the Norwegian Environment Agency gave an evaluation of the environmental effects of discharges from exhaust gas cleaning systems into the world heritage fjords in a letter dated 9 May 2018. Their evaluation concluded:

«In our opinion, it is not very likely that the discharge of scrubber water results in acute toxic effects on the recipients. However, we cannot exclude the possibility that certain substances, such as lead, mercury, nickel, copper, zinc, vanadium and benzo(a)pyrene, may accumulate in the innermost parts of the fjord arms, resulting in negative environmental effects over time. All pollution is undesirable. The cruise industry is not a cogent reason for accepting deterioration of the water bodies in the world heritage fjords. In order for such activity to cause the least possible environmental damage, it is our opinion that open loop scrubbers should be phased out, and possibly banned, within a few years. For the time being, we think that the cruise industry should as a minimum contribute to monitoring the bodies of water in the innermost parts of the fjord arms. The monitoring should include the chemical state of sediments and biota with respect to the substances mentioned in this letter and any other relevant supporting parameters.»

We have limited knowledge of the damage potential of emissions and discharges from exhaust gas cleaning systems and the accumulation of heavy metals in threshold fjords, which suggests that the use of open exhaust gas cleaning systems should be banned in the world heritage fjords. We acknowledge that there are no significant discharges to sea from hybrid and closed systems, but visual pollution in the form of water vapour is a documented problem. The feedback received this summer shows that tourists and residents do not distinguish between water vapour and other types of smoke. This points towards also prohibiting closed and hybrid exhaust gas cleaning systems in the world heritage fjords. During the summer of 2018, we have seen that several cruise ships have chosen to replace heavy fuel oil (HFO) and exhaust gas cleaning systems with marine gas oil (MGO) in order to reduce the visible smoke emissions.

Because of the exceptional value of the world heritage fjords and the fact that we have limited knowledge of the damage potential of emissions and discharges from exhaust gas cleaning systems and the accumulation of heavy metals in threshold fjords, and also in order to reduce visible smoke in the world heritage fjords, we are proposing a prohibition against the use of exhaust gas cleaning systems as an equivalent solution in the world heritage fjords. The ban includes both open, closed and hybrid exhaust gas cleaning systems.

3.1.2 Implications of the proposal

The proposal applies to the Norwegian world heritage fjords only.

In both Norwegian and foreign short sea shipping, diesel is being used as fuel.

The proposal implies that cruise ships may not use exhaust gas cleaning systems and heavy fuel oil (HFO) in the world heritage fjords. Cruise ships have, or may have, several types of fuel on board. We presume that the ships will be able to use fuel with a sulphur content not exceeding 0.10% by weight in the world heritage fjords. Both voyages and stays in the world heritage fjords are relatively short,

and we therefore assume that the use of fuel oil with a sulphur content of 0.10% by weight will imply limited costs for the companies.

This requirement has no implications for Norway. For cruise ship passengers and residents in the world heritage fjord areas, the proposed amendments will have positive implications.

We have considered whether the stricter regulations should be introduced gradually, but since the ships already have the possibility of using fuel with a sulphur content not exceeding 0.10% by weight, we think it is justifiable that the ban will be effective from 1 January 2019.

3.2 Prohibition against incineration of waste on board ships in the world heritage fjords

We are proposing a prohibition against incineration of waste on board ships in the world heritage fjords. The prohibition is stipulated in a new section 14e.

3.2.1 Reason for the proposal

The proposal is based on the fact that we wish to reduce smoke pollution in the world heritage fjords, both from ships underway and ships at berth or anchor in a port area.

MARPOL Annex VI/16 regulates the incineration of waste on board. The ban on incineration is further regulated in section 21-2 of the Pollution Regulations.

"The incineration of waste or other material on board ships and offshore units is banned in Norway. Within the remit of international law, this also applies to incineration in the Norwegian Economic Zone and on the Norwegian Continental Shelf.

The ban includes incineration on board Norwegian ships in all waters."

Incineration is defined in section 21-1 (c) as *"any thermal destruction of waste or other material with the intention of disposing of such materials. Incineration does not include incineration connected with or following from normal operation of ships, offshore units or their equipment, except where the waste or material has been removed from the source of the waste to be disposed of elsewhere."*

This means that approved incinerator plants may be used to incinerate waste from normal operation on ships in Norwegian waters, in the Economic Zone of Norway and on the Norwegian continental shelf, cf. MARPOL VI/16 and V/9 (own waste) that apply. Nevertheless, it is not permitted to incinerate sewage sludge and sludge oil generated during normal operation of a ship while the ship is inside ports, harbours and estuaries.

We see a need to reduce visible smoke in the world heritage fjords and therefore propose a prohibition against incineration of waste on board ships in the world heritage fjords.

3.2.2 Implications of the proposal

It is the NMA's opinion that this proposal has no financial implications. Both voyages and stays in the world heritage fjords are relatively short. We believe it is unproblematic for ships to defer the incineration of waste until they have left the world heritage fjords. Another option is to deliver waste ashore.

3.3 Possibility of exemption from the NO_x requirements

We are proposing that the NMA may upon written application from a company grant exemption for a ship from the Tier I requirements set out in MARPOL regulation VI/13, if it can be documented that

the ship will comply with the Tier III requirements not later than 1 January 2022. The exemption possibility is stipulated in the new section 14c second paragraph.

3.3.1 Reason for the proposal

We have received feedback from the industry where they ask for an opportunity to be granted exemption from the Tier I requirements and rather comply with the Tier III requirements. We find that such a possibility for exemption is reasonable and will make it easier for ships to satisfy the Tier III requirements at an earlier date.

Exemption may be granted to the individual ship upon application. The company must document how the ship will proceed to comply with the Tier III requirements not later than 1 January 2022. In an application for exemption the company must describe what kind of technology the ship will utilise in order to satisfy the Tier III requirements, including a detailed modification plan, and relevant signed contracts for the execution of the modification. When the modification is completed, the company must submit a copy of a new EIAPP certificate to the NMA.

3.3.2 Implications of the proposal

In the opinion of the NMA, this proposal will have positive implications and make it easier for ships to satisfy the Tier III requirements at an earlier date.

3.4 Summary of administrative and financial implications of the proposals

3.4.1 Proposal that fuel being used when the ship is in the world heritage fjords shall have a sulphur content of maximum 0.10% by weight, and proposal to prohibit the use of exhaust gas cleaning systems

The proposal that fuel being used when the ship is in the world heritage fjords shall have a sulphur content of maximum 0.10% by weight, and the proposal to prohibit the use of exhaust gas cleaning systems in the world heritage fjords will involve supplementary fuel costs in order for the companies to meet the requirements.

Because of the exceptional value of the world heritage fjords, the fact that we have only limited knowledge of the damage potential of emissions and discharges from the exhaust gas cleaning systems and the accumulation of heavy metals in threshold fjords, and in order to reduce the visible smoke in the world heritage fjords, we are proposing a prohibition against the use of exhaust gas cleaning systems in the world heritage fjords. This prohibition includes both open, closed and hybrid exhaust gas cleaning systems.

The proposal implies that cruise ships may not use exhaust gas cleaning systems and heavy fuel oil (HFO) in the world heritage fjords. Cruise ships have, or may have, several types of fuel on board. We presume that the ships will be able to use fuel with a sulphur content not exceeding 0.10% by weight in the world heritage fjords. Both voyages and stays in the world heritage fjords are relatively short, and we therefore assume that the use of fuel oil with a sulphur content of 0.10% by weight will imply limited costs for the companies.

This requirement has no implications for Norway. For cruise ship passengers and residents in the world heritage fjord areas, the proposed amendments will have positive implications.

3.4.2 Prohibition against incineration of waste on board ships in the world heritage fjords

It is the NMA's assessment that the proposed prohibition against incineration of waste on board ships in the world heritage fjords will have no financial implications. Both voyages and stays in the world heritage fjords are relatively short. We believe it is unproblematic for ships to defer the incineration of waste until they have left the world heritage fjords.

3.4.3 Possibility of exemption from the NO_x requirements

In the opinion of the NMA, the proposal that the NMA may upon written application from a company grant exemption for a ship from the Tier I requirements set out in MARPOL regulation VI/13, if it can be documented that the ship will comply with the Tier III requirements not later than 1 January 2022, will have positive implications and make it easier for ships to satisfy the Tier III requirements at an earlier date.

4 Attachments:

Proposed regulatory amendments

Recommendation from the Norwegian Environment Agency