The Polar Code

15 July 2015
6 min. read
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The International Marine Organisation (**IMO**) is a specialised body of the United Nations responsible for the safety and security of global shipping, as well as regulation of pollution in marine environments. In May 2015, the IMO formally adopted the International Code for Ships Operating in Polar Waters (**the Polar Code**). This mandatory code comes into operation from 1 January 2017 for vessels constructed after that date and after 1 January 2018 for pre-existing vessels.

In the following article, we provide an outline, and discusses the implications of the Polar Code.

Increased Shipping Activity in Polar Regions

According to claims by some climate change scientists, as climate change leads to gradual warming of the earth's atmosphere, the polar ice caps have gradually retracted. In 2012, the Arctic Circle recorded the lowest level of sea ice since satellite monitoring began in 1979. The breakdown of multi-year ice has led to the opening of waterways previously inaccessible to large vessels leading to an increase in the amount of weeks per year routes are open for shipping. Previously unreliable routes are now commercially viable and can considerably reduce both the time and cost of an otherwise protracted journey. The retraction of the ice shelves has uncovered rich mineral resources and unreachable areas have become open for research, drilling and exploration. Additionally, tourist cruises through both Polar Regions are becoming increasingly popular.

Environmental Concerns

The main environmental concerns that arise as a result of the increased shipping activity:

- The vulnerability of the Polar ecosystems is such that the potential ramifications of pollution pose a considerable risk. While large scale spills are obviously highly damaging events, such as the 2010 Deepwater Horizon oil spill in the Gulf of Mexico, cumulative small scale pollution via a vessel's normal operation must also be addressed.
- The remoteness and inhospitable environment could significantly hamper any large pollution containment or clean-up process. Smaller clean-up vessels may not be suitable for the region and the rapid formation of ice may obstruct oil clean-up or access to a leaking oil well.
- 'Black Carbon' deposits accumulating on the ice restricts the reflective capability (albedo) of the ice, increasing the rate of melt.
- The increased shipping activity in the Arctic Circle largely coincides with mammal breeding routes during the summer. There is also the increased risk of collision between large mammals and vessels.
- The potential introduction of invasive species into the fragile ecosystem via ballast tanks.

The Existing Framework

The implementation is effected via amendments to two existing IMO conventions; the addition of Chapter XIV into the International Convention for the Safety of Life at Sea 1974 (**SOLAS**) and the amendment of Annexes I, II, IV and V to the International Convention for the Prevention of Pollution from Ships 1975 as modified by the 1978 Protocol (**MARPOL**).

The IMO has also published multiple guidelines on areas relating to marine pollution from shipping

activity, but none set mandatory standards.

The Polar Code

Part II-A of the Polar Code contains the mandatory pollution prevention measures, addressing pollution by oil, noxious liquids, sewage and garbage. The code will apply to all commercial vessels operating in Polar Waters weighing 500 tons or more (approximately 453 metric tonnes).

- All vessels must have policies and procedures in place to address small-scale pollution events, such as deck spills, as well as a large-scale pollution event, such as a leaking oil tank. This will form part of the vessel's Polar Ship Certificate.
- Discharge of oil and noxious liquids into the sea is prohibited. Additionally, for vessels constructed after 1 January 2017, there are strict construction requirements for the separation of oil tanks and noxious liquid tanks from the outer shell. Regulation 43 of MARPOL Annex I must also be complied with, which prohibits the use or carriage of heavy fuel in the Antarctic Area.
- The degree to which sewage discharge is permitted depends on whether the sewage has been subject to treatment outlined in MARPOL Annex IV, regulation 11.1.1. Cargo vessels constructed after 1 January 2017 may only discharge sewage where it has been treated consistent with IMO guidelines (see resolution MEPC 227(64)). All discharges must comply with the distance requirements of 3 nautical miles for treated waste and 12 nautical miles for untreated waste. Distance limits are prescribed from the nearest ice shelf, land-fast ice or ice concentration exceeding 1/10.
- Food waste discharge is permitted only when a ship is en route, and must be no less than 12 nautical miles from the nearest ice shelf, land-fast ice or ice concentration exceeding 1/10. The food must be ground to pieces smaller than 25mm. Any discharge of animal carcases is prohibited.

Not Far Enough?

Although the Polar Code is a significant step in ensuring the environmental protection of Polar seas, it fails to address many of the environmental concerns raised during the consultation process. Some of the concerns raised:

- Ballast tanks and anti-fouling practices were not addressed at all in the Polar Code. There are recommendatory regulations in Part II-B as well as existing IMO guidelines, but all lack mandatory force.
- The prohibition on 'Heavy Fuel' in Antarctica contained in Resolution MEPC 189(60) was not extended to cover the Arctic seas. Heavy fuel is slower to break down than other forms of oil, especially in polar waters. Burning heavy fuel also causes higher levels of emissions of greenhouse gasses. Currently, most cruise liners and bulk-carriers visiting Polar waters burn heavy fuel.
- 'Black carbon' emissions from the burning of fossil fuel were not addressed.
- There was no effort to restrict shipping routes in order to protect mammal breeding grounds.

Who Should Take Note?

With an estimated 13% of the world's undiscovered conventional oil and 30% of the world's undiscovered conventional gas hidden under the Arctic Circle, exploration and development is not likely to stop. In May 2015, the United States granted Anglo-Dutch Company Royal Dutch Shell approval to commence oil exploration 70km off the North coast of Alaska. They join multiple Russian companies such as Gazprom already drilling in the Arctic Circle.

Any company looking to undertake exploration in the Polar Regions will need to comply with the provisions of the Polar Code. Any exploration will likely involve the use of ice breakers, oil tankers, cargo ships and rigs, as well as numerous pilot vessels. There will need to be careful consideration of the impact the Polar Code may have on a ship's ability to operate within the Polar Regions.

Additionally, companies looking to exploit the increase in trade routes through arctic passages will need to consider the suitability of their fleet. Even if the vessels are categorised as suitable for polar voyages, increased training and equipment requirements, as well as structural design and construction requirements may be significant costs for a business. Additionally, owners and operators of polar vessels must be sure to maintain rigorous procedures, navigational currency and caution, rather than risk complacency.

Finally, any tourism operators in the Polar Regions must be especially mindful of the sewage and garbage disposal regulations.

For more information or discussion, please contact HopgoodGanim Lawyers' Environment team.

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