Protection of the Sea (Prevention of Pollution from Ships) Amendment (Air Pollution) Bill 2019

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Date introduced: 18 September 2019
House: House of Representatives
Portfolio: Infrastructure, Transport, Cities and Regional Development

Commencement: Part 1 of Schedule 1 commences on the day after Royal Assent or 1 January 2020, whichever is later. Part 2 of Schedule 1 commences immediately after Part 1 of Schedule 1, or 1 March 2020, whichever is later. Schedules 2 and 3 commence on the day after Royal Assent.

Links: The links to the Bill, its Explanatory Memorandum and second reading speech can be found on the Bill’s home page, or through the Australian Parliament website. When Bills have been passed and have received Royal Assent, they become Acts, which can be found at the Federal Register of Legislation website.

All hyperlinks in this Bills Digest are correct as at October 2019.
Purpose of the Bill
The purpose of the Protection of the Sea (Prevention of Pollution from Ships) Amendment (Air Pollution) Bill 2019 (the Bill) is to amend the Protection of the Sea (Prevention of Pollution from Ships) Act 1983 (POTS Act) to implement Australia’s international obligations in relation to sulphur emissions from ships under the International Convention for the Prevention of Pollution from Ships (MARPOL).  

Structure of the Bill
The Bill has three schedules:

- Schedule 1 contains two parts:
  - Part 1 implements the MARPOL exemption which allows for the use of high sulphur fuel on ships that have an approved exhaust gas cleaning system or other technology to reduce sulphur dioxide emissions
  - Part 2 implements the MARPOL ban on carrying high sulphur fuel for combustion on board a ship (which is in addition to the existing ban on the use of high sulphur fuel)
- Schedule 2 contains minor technical amendments to clarify the obligations of fuel oil suppliers in the POTS Act and
- Schedule 3 amends the Act to exempt naval and foreign government vessels from the POTS Act.

Background
MARPOL is the main convention adopted by the International Maritime Organization (IMO) to reduce pollution by ships. The aim of MARPOL is to prevent both accidental pollution and pollution from routine vessel operations. MARPOL includes six technical annexes:

- Annex I: Regulations for the prevention of pollution by oil
- Annex II: Regulations for the control of pollution by noxious liquid substances in bulk
- Annex III: Regulations for the prevention of pollution by harmful substances carried by sea in packaged form
- Annex IV: Regulations for the prevention of pollution by sewage from ships
- Annex V: Regulations for the prevention of pollution by garbage from ships and
- Annex VI: Regulations for the prevention of air pollution from ships.

Australia has adopted all six annexes and implements MARPOL domestically through the POTS Act and the Navigation Act 2012.

Annex VI of MARPOL, which entered into force in 2005, deals with air pollution from ships. Among other matters, it sets limits on the sulphur content of fuel. The IMO explains the issue with sulphur in fuel:

5. For further information on Annex VI of MARPOL, see IMO, ‘Prevention of Air Pollution from Ships’, IMO website; and IMO, ‘Index of MEPC Resolutions and Guidelines related to MARPOL Annex VI’, IMO website.
The main type of “bunker” oil for ships is heavy fuel oil, derived as a residue from crude oil distillation. Crude oil contains sulphur which, following combustion in the engine, ends up in ship emissions. Sulphur oxides (SOx) are known to be harmful to human health, causing respiratory symptoms and lung disease. In the atmosphere, SOx can lead to acid rain, which can harm crops, forests and aquatic species, and contributes to the acidification of the oceans. Limiting SOx emissions from ships will improve air quality and protects the environment.6

In 2008, the IMO adopted amendments to Annex VI, setting progressively more stringent Regulations to control emissions from ships, including sulphur oxides (SOx). Under these amendments, from 1 January 2020, the sulphur content in fuel oil used by ships must be less than 0.5 per cent by weight.7

In Australia, the POTS Act was amended in 2010 to enable sulphur limits to be prescribed in marine orders.8 The limit for the sulphur content of fuel is set out in Marine Order 97 (Marine pollution prevention — air pollution) 2013, which already contains the 0.5 per cent sulphur limit from 1 January 2020.9 As noted by the Minister in the second reading speech to the Bill:

Ship operators have several options to comply with the new IMO sulphur regulations, including using low-sulphur marine fuel oil, diesel or alternative fuel types with low to zero sulphur, such as liquefied natural gas, biofuels and hydrogen, as well as using fully electric vessels. Ships can also continue to use high-sulphur fuel oil provided that they are fitted with an exhaust gas cleaning system, also known as a scrubber, to reduce sulphur in their emissions to below the 0.5 per cent limit.10

In 2018, an amendment to MARPOL was adopted to prohibit non-compliant (high sulphur) fuel oil being carried for combustion on board a ship.11 This is referred to as the ‘carriage ban’ and is intended as an additional measure to support consistent implementation of, and compliance with, the sulphur fuel limit.12 In particular, the carriage ban is designed to discourage ships from switching to high sulphur fuels on the high seas, beyond a country’s jurisdictional boundaries.13 The carriage ban does not apply to fuel oil being carried as cargo (such as on an oil tanker).14

As noted in the Minister’s second reading speech above, there is an exception to the carriage ban, and the sulphur limit more generally, for ships fitted with an appropriate exhaust gas cleaning system that is able to reduce SOx emissions to below the 0.5 per cent limit. In this context, the definition of ‘sulphur fuel oil’ is expanded to include ‘fuel oil’ delivered to and used in ships for propulsion purposes, including distillate and residual fuels. Since fuel oil contains sulphur, this is also referred to as ‘sulphur marine fuel oil’.15

As noted in the Minister’s second reading speech above, there is an exception to the carriage ban, and the sulphur limit more generally, for ships fitted with an appropriate exhaust gas cleaning system.16

11. IMO MEPC, Amendments to MARPOL Annex VI (Prohibition on the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship), Resolution MEPC.305(73), adopted 26 October 2018.
14. Ibid. In short, Regulation 2.9 of MARPOL Annex VI provides the definition for ‘fuel oil’ as meaning ‘any fuel delivered to and intended for combustion purposes for propulsion or operation on board a ship, including gas, distillate and residual fuels’. As a result of this definition, the provision does not apply to fuel oil being carried as cargo: IMO, ‘Sulphur 2020 – cutting sulphur oxide emissions’, op. cit.
system (also known as a ‘scrubber’). Scrubbers are designed to remove sulphur oxides from the ship’s engine and boiler exhaust gases. As the IMO states, ‘a ship fitted with a scrubber can use heavy fuel oil, since the sulphur oxides emissions will be reduced to a level equivalent to the required fuel oil sulphur limit’.

As outlined further in the ‘Key issues and provisions’ section of this Digest, the Bill proposes to amend the POTS Act to implement the carriage ban, along with the exception for scrubbers.

**Committee consideration**

**Selection of Bills Committee**

The Senate Selection of Bills Committee recommended that the Bill not be referred to a committee.

**Senate Standing Committee for the Scrutiny of Bills**

At the time of writing, the Senate Standing Committee for the Scrutiny of Bills had not yet commented on the Bill.

**Policy position of non-government parties/independents**

At the time of writing, non-government parties and independents do not appear to have publicly commented on the Bill.

**Position of major interest groups**

At the time of writing, major interest groups do not appear to have directly commented on the Bill itself, although the shipping industry has reportedly been preparing for the introduction of the sulphur limit for many years. As the Minister noted in his second reading speech, the Australian Maritime Safety Authority (AMSA) has:

> … consulted on the implementation of the sulphur cap with Australia’s maritime industry, fuel oil suppliers and port industries for more than 18 months. The industry is supportive of Australia’s consistent application of the new sulphur standard to ensure a global level playing field.

Some industry commentators have also suggested that, although the sulphur limit may result in additional costs across the shipping supply chain, it may nonetheless enhance Australia’s competitive advantage in export industries such as iron ore, as those additional costs will be lower for Australia than some other countries. However, as also noted in the second reading speech, the carriage ban being implemented by the Bill does not impose an additional financial impact on
shipping companies or increase freight costs, as ships are already prohibited from using non-compliant fuel from 1 January 2020.\footnote{McCormack, ‘Second reading speech: Protection of the Sea (Prevention of Pollution from Ships) Amendment (Air Pollution) Bill 2019’, op. cit., p. 3349.}

As discussed further in the ‘Key issues and provisions’ section of this Digest, the International Council on Clean Transportation (ICCT) has reportedly expressed concern about the exceptions to the sulphur limits under MARPOL in relation to exhaust gas cleaning systems and the adequacy of the standards for these exhaust gas cleaning systems under relevant IMO Guidelines.\footnote{See, for example, L Izbicki and J Fox, ‘IMO issues more guidance on sulfur limit, uncertainty on scrubbers persists’, S&P Global website, 21 May 2019; W Crisp, ‘Thousands of ships fitted with “cheat devices” to divert poisonous pollution into sea’, Independent, 29 September 2019.}

### Financial implications

According to the Explanatory Memorandum, the Bill will have no financial impact on the Commonwealth.\footnote{Explanatory Memorandum, op. cit., p. 2.}

### Statement of Compatibility with Human Rights

As required under Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011 (Cth), the Government has assessed the Bill’s compatibility with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of that Act. The Government considers that the Bill is compatible.\footnote{The Statement of Compatibility with Human Rights can be found at pages 3–4 of the Explanatory Memorandum to the Bill.}

### Parliamentary Joint Committee on Human Rights

At the time of writing, the Parliamentary Joint Committee on Human Rights had not yet commented on the Bill.

### Key issues and provisions

The Bill proposes to amend the POTS Act to implement the ban on carrying fuel oil with a sulphur content above the prescribed limit, along with the exception for ships fitted with an approved exhaust gas cleaning system (or other approved method).

### Sulphur limit—exceptions

Section 26FEG of the POTS Act sets out ordinary and strict liability offences that are committed if a person engages in conduct that results in fuel oil with a sulphur content above the prescribed limit being used on a ship.\footnote{The imposition of strict liability means that a fault element does not need to be satisfied, but the offence will not criminalise honest errors and a person cannot be held liable if he, or she, had an honest and reasonable belief that they were complying with relevant obligations.}

As noted earlier, the prescribed 0.5 per cent sulphur limit from 1 January 2020 is set out in Marine Order 97 (Marine pollution prevention — air pollution) 2013.\footnote{Marine Order 97 (Marine pollution prevention — air pollution) 2013, clause 30.}

Item 7 of Part 1 of Schedule 1 inserts proposed section 26FEGA into the POTS Act, which sets out a number of exceptions to the offences in section 26FEG. As is already the case for the existing exceptions in the POTS Act, the defendant bears the evidential burden of proving the matters set out in the exceptions in proposed section 26FEGA.\footnote{See the existing notes to subsections 26FEG(5) and (6), and also subsection 13.3(3) of the Criminal Code.}
**Exception for approved exhaust gas cleaning systems**

The first exception, set out in **proposed subsection 26FEGA(1)**, is where fuel oil is used while an ‘Annex VI approved equivalent’ is operating on the ship. This exception is new to the offences in section 26FEG, although it is currently available for the offences in section 26FEH (which relate to sulphur emissions from Australian ships in Emissions Control Areas, discussed later in this Digest).

‘Annex VI approved equivalent’ is defined in **proposed section 26FEKA** as an exhaust gas cleaning system (EGCS) or another technological method for reducing sulphur oxide emissions approved for use on board the ship. As explained earlier in this Digest, exhaust gas cleaning systems remove sulphur oxide (and some other emissions) from ship exhaust gases, and are also known as ‘scrubbers’.

For Australian ships, approval relating to the relevant cleaning system may be given by a prescribed officer under Regulations made under **proposed subsection 26FEKA(2)**. In the case of foreign registered ships, the Annex VI equivalents are approved by the government of the country in which the ship is registered in accordance with guidelines under Regulation 4 of Annex VI, MARPOL.29

The Explanatory Memorandum states:

> Annex VI approved equivalents are required to be at least as effective in terms of sulphur emissions reductions as the prescribed level, and the resultant waste is required to be disposed according to regulations. These regulations are provided through guidelines produced by the IMO, which are given effect through Marine Order 97.30

The relevant **IMO Guidelines on Exhaust Gas Cleaning Systems**31 are currently under review.32 Notably, there has been some discussion about the adequacy of the washwater discharge standards under the Guidelines, particularly for ‘open-loop’ exhaust gas cleaning systems.33 The ICCT, for example, has reportedly expressed concern that open-loop scrubbers allow ships to discharge large volumes of polluted water.34 However, the IMO considers there are already ‘strict criteria for discharge of washwater from exhaust gas cleaning systems’.35 Nonetheless, some countries have reportedly banned the use of open-loop scrubbers or the discharge of scrubber wastewater in some regions.36

**Other exceptions**

**Proposed subsection 26FEGA(3)** provides that the strict liability offence in subsection 26FEG(2) does not apply in an emergency relating to safety at sea. **Proposed subsection 26FEGA(4)** provides that the strict liability offence in subsection 26FEG(2) does not apply where the situation has

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28. As inserted by **item 13** of Part 1 of Schedule 1 of the Bill.
29. **Proposed paragraph 26FEKA(1)(d).**
30. Explanatory Memorandum, op. cit., p. 6; see also AMSA, ‘Regulations for air emissions from ships’, op. cit.
33. The standards are set out in part 10 of the IMO guidelines. See also Izbicki and Fox, ‘IMO issues more guidance on sulfur limit, uncertainty on scrubbers persists’, op. cit.; Crisp, ‘Thousands of ships fitted with “cheat devices” to divert poisonous pollution into sea’, op. cit.
34. Crisp, ‘Thousands of ships fitted with “cheat devices” to divert poisonous pollution into sea’, op. cit.
35. Ibid.
36. Ibid.
occurred as a result of unintentional damage to the ship or its equipment. These exceptions reflect the exceptions set out in Regulation 3 of Annex VI of MARPOL.

Subsections 26FEG(5) and (6) currently set out an exception to the offences in section 26FEG, which applies where the relevant person:

- took all reasonable steps to obtain fuel oil with a sulphur content of not more than the prescribed limit and
- has (in accordance with the Regulations) notified a prescribed officer (or in the case where the ship’s next port of call is in a foreign country, the government of that foreign country) that the person has been unable to obtain fuel oil with a sulphur content of ‘not more than that limit’.

Item 6 repeals subsections 26FEG(5) and (6), and the same exception will instead be included in proposed subsection 26FEGA(7).

**Carriage ban**

Part 2 of Schedule 1 of the Bill implements the ‘carriage ban’ under MARPOL. As outlined in the background section of this Digest, the carriage ban prohibits the carriage of non-compliant fuel oil for use on board a ship, unless the ship has an exhaust gas cleaning system (or ‘scrubber’) fitted.

As noted above, section 26FEG of the POTS Act sets out ordinary and strict liability offences that are committed if a person engages in conduct that results in fuel oil with a sulphur content above the prescribed limit being used on a ship.

Items 16 and 19 of Part 2 of Schedule 1 amend section 26FEG to extend the offences to carriage of high sulphur fuel, in addition to the existing offence of use of high sulphur fuel (the carriage offences). More precisely, the offences will be extended to conduct that results in fuel oil with a sulphur content above the prescribed limit being ‘carried on board the ship for use on board the ship as fuel’. The offences are not intended to cover high sulphur fuel being carried as cargo.

The offences in section 26FEG only apply to ships in particular areas. There is currently a presumption under subsection 26FEG(4) that the fuel oil is used in those areas. In other words, the defendant bears a legal burden to prove that the fuel was not used in those areas. This presumption is retained by the Bill, although item 20 of Schedule 1 extends the presumption as a result of the carriage ban. New subsection 26FEG(4) provides that fuel oil carried on board a ship

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37. Note that proposed subsection 26FEGA(6) provides that damage does not include deterioration resulting from failure to maintain the ship or equipment, or defects that develop during the normal operation of the ship or equipment.

38. See further Explanatory Memorandum, op. cit., p. 6–7.

39. IMO MEPC, Resolution MEPC.305(73), op. cit.

40. The imposition of strict liability means that a fault element does not need to be satisfied, but the offence will not criminalise honest errors and a person cannot be held liable if he, or she, had an honest and reasonable belief that they were complying with relevant obligations.

41. As noted earlier in this Digest, the prescribed limit 0.5 per cent sulphur limit from 1 January 2020 is set out in Marine Order 97 (Marine pollution prevention — air pollution) 2013, clause 30.

42. See proposed subparagraph 26FEG(1)(b)(ii) inserted by item 16 of Schedule 1 and proposed subparagraph 26FEG(2)(a)(iii) inserted by item 19 of Schedule 1.

43. See also Explanatory Memorandum, op. cit., p. 9.

44. That is: in the sea near a state, the Jervis Bay Territory or an external territory and there is no law of that state or territory gives effect to the MARPOL sulphur limit in that area; the outer territorial sea; Australia’s exclusive economic zone; or an Australian ship beyond Australia’s exclusive economic zone, but not within a sulphur oxide (SO\textsubscript{x}) emission control area. For an explanation of maritime boundaries, see Geoscience Australia (GA), ‘Maritime Boundary Definitions’, GA website, n.d.

45. See the note to subsection 26FEG(4) and also sections 13.4 and 13.5 of the Criminal Code.

46. Proposed subsections 26FEG(5) and (6) in item 20 of Part 2 of Schedule 1 of the Bill.
is presumed to be carried for use as fuel unless the contrary is proved. As the Note to the proposed subsection explains, the defendant bears a legal burden in relation to proving the contrary. The Explanatory Memorandum suggests that this is appropriate because ‘a defendant would be able to uniquely demonstrate that the fuel is used for combustion or operation on board the ship’. 47

**Item 22** of Schedule 1 amends **proposed subsection 26FEGA**48 to include the exception from the carriage ban for ships that have an ‘Annex VI approved equivalent’ (that is, an approved exhaust gas cleaning system) installed on the ship. This exception was discussed earlier in this Digest.

**Items 23–25** extend the exceptions relating to emergencies, unintentional damage to the ship or its equipment, and unavailability of low-sulphur fuel oil, to the new carriage offences.

**Emission Control Areas**

Annex VI of MARPOL provides that special rules apply in designated sulphur oxide (SO\textsubscript{x}) emission control areas. The sulphur content of fuel oil used by ships operating in these areas must not exceed 0.1 per cent. Alternatively, ships must fit an exhaust gas cleaning system or other approved technological method to limit SO\textsubscript{x} emissions. To date, four areas have been designated as SO\textsubscript{x} Emission Control Areas: the Baltic Sea, North Sea, the North American area (both east and west coasts of the United States and Canada) and the United States Caribbean Sea area.49

Section 26FEH of the *POTS Act* currently implements this aspect of Annex VI of MARPOL by setting out ordinary and strict liability offences for Australian ships breaching SO\textsubscript{x} emission control rules in Emission Control Areas.

Subsections 26FEH(4) and (5) provide the exception for ships with approved exhaust gas cleaning systems, while subsections 26FEH(6)–(8) set out exceptions to the strict liability offence for emergencies and unintentional damage to the ship or its equipment. Subsection 26FEH(9) contains an exception to both offences relating to the unavailability of fuel oil with a sulphur content of not more than the prescribed limit.

**Items 8–11** of Part 1 of Schedule 1 of the Bill rearrange the exceptions to these offences without making any substantive changes. In particular, **item 10** repeals subsections 26FEH(4)–(9), but the same exceptions will still be available in a revised subsection 26FEH(4) and **proposed section 26FEHA**.50 **Items 26–31** of Part 2 of Schedule 1 of the Bill amend section 26FEH and **proposed section 26FEHA** to extend these exceptions to the new carriage offences.

**Other provisions**

**Exemption for naval and government ships**

Schedule 3 of the Bill inserts a **proposed section 6A** into the *POTS Act*, which will provide that the Act does not apply to warships or naval auxiliary ships, or a ship owned or operated by a foreign government while on non-commercial service. This effectively exempts naval and foreign government vessels from the *POTS Act*. This is consistent with Article 3(3) of MARPOL, which

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47. Explanatory Memorandum, op. cit., p. 10.
48. As outlined earlier, proposed subsection 26FEGA is inserted by **item 7** in Part 1 of Schedule 1 of the Bill.
50. As inserted by **item 11** of Part 1 of Schedule 1.
provides that the Convention ‘shall not apply to any warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government non-commercial service’. At the same time, this Article of MARPOL provides:

... each Party shall ensure by the adoption of appropriate measures not impairing the operations or operational capabilities of such ships owned or operated by it, that such ships act in a manner consistent, so far as is reasonable and practicable, with the present Convention.\textsuperscript{51}

The Explanatory Memorandum states that ‘the Australian Defence Force proactively complies with MARPOL requirements, which are regulated through the Office of the Defence Seaworthiness Regulator’.\textsuperscript{52}

\textsuperscript{51} See also Explanatory Memorandum, op. cit., p. 15.

\textsuperscript{52} Ibid.