PART II

Special Obligations and Jurisdictions under UNCLOS Part XII to Enforce Air Pollution Regulations

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Protecting the Environment: UNCLOS Part XII

Part XII of UNCLOS[1] contains 46 articles (articles 192–237) in 11 sections. It is primarily the provisions of section 5 (articles 207–212) on 'International rules and national legislation to prevent, reduce and control pollution of the marine environment', section 6 (articles 213–222) on 'Enforcement' and section 7 (articles 223–233) on 'Safeguards' that will be analysed in this part (Part II) of the book.[2]

The main focus in Part II is clarification of the rights and obligations for the different State entities (flag, coastal and port) in implementing and enforcing MARPOL Annex VI[3] through these provisions of part XII of UNCLOS.

This chapter will concentrate on the general obligations for all States to cooperate and to implement International Maritime Organization (IMO) regulations. The right to adopt national legislation in environmental matters will also be clarified, as will the scope of articles 212 and 222, which specifically relate to air pollution.

The increased obligations for flag States to investigate, enforce and inform pursuant to article 217 of UNCLOS, and the special extraterritorial jurisdictions for coastal and port States according to article 220 and article 218,[4] will form the basis of the analysis in chapters 8–10. Chapter 11 studies article 228(1) relating to overlapping jurisdiction between flag States and port or coastal States, while chapter 12 describes the safeguarding provisions of section 7 and the procedural dispute-settlement possibilities of part XV, before chapter 13 offers a conclusion on Part II.

[1] United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3.

[2] Some of the provisions of pt XII, eg art 219 and arts 224–227, have already been studied in ch 4 relating to investigation and detention during Part State Control (PSC).

[3] International Convention for the Prevention of Pollution from Ships (adopted on 11 February 1973, as modified by the Protocol of 17 February 1978, entered into force 2 October 1983) 1340 UNTS 61 (MARPOL), Annex VI, IMO Publication: IMO-520E.

[4] A Kanehara, 'Environmental Protection of Ocean and Flag-State Jurisdiction' Rikkyo University, Faculty of Law, paper delivered at the 8th Conference of SCA Qingdao, China, 27–30 May 2008, 4, where it is stated that 'In respect to vessel-source pollution, the relevant provisions of the UNCLOS are mainly Articles 211, 217, 218, 219 and 220. Among them the most important provisions are Articles 218 and 220 from the perspective of the flag state principle and its compromise with other states' concurrent jurisdiction.'

I. Introduction to Part XII of UNCLOS

Many provisions of part XII of UNCLOS refer to the implementation and enforcement of 'international rules and standards … for the prevention, reduction and control of pollution of the marine environment from vessels'. This book will use the term 'international rules for the protection of the marine environment' as a shorter reference to these regulations.

All such references in the provisions of part XII to international rules for the protection of the marine environment encompass the regulations in MARPOL Annex VI.[5] This is based on article 1(1)(4) of UNCLOS, which defines 'pollution of the marine environment' as manmade pollution that poses a danger to living resources, marine life and human health. Sulphur pollution fits this description. For further details, see chapter 3.

That MARPOL is covered by the provisions of part XII of UNCLOS is supported by the following statement made by the IMO's Legal Committee:

> The power to impose sanctions conferred by IMO regulations on the port State (notably in the MARPOL Convention) should be related to the rights and obligations provided in part XII of UNCLOS.[6]

The references in part XII to international rules protecting the marine environment cover a number of other IMO conventions, such as other annexes of the MARPOL Convention, the London Convention, the Anti-fouling Convention,[7] the BWM Convention,[8] etc.[9] Future IMO legal measures on greenhouse gases (GHGs) will undoubtedly also be embraced by the enforcement principles of part XII.[10] All references in part XII to the 'competent international organization' are direct references to the IMO.[11]

Finally, it is noted that article 236 stipulates that the provisions of part XII do not apply to any State-operated warship or naval vessel (or aircraft) in government service.

[5] Some provisions of pt XII have explicitly narrow scope to cover certain specific forms of violation, eg art 216, referring to 'dumping', which obviously has direct ties to the Convention for the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (adopted 13 November 1972, entered into force 30 August 1975) 1046 UNTS 120 ('the London Convention'), and not MARPOL Annex VI.

[6] IMO Legal Committee, 'Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization', LEG/MISC. 8 (30 January 2014) 13.

[7] International Convention on the Control of Harmful Anti-fouling Systems on Ships (adopted 5 October 2001, entered into force 17 September 2008) ('the Anti-Fouling Convention' or 'AFS Convention').

[8] The International Convention for the control and management of ship's ballast water and sediments, 2004 (adopted 13 February 2004, entered into force 8 September 2017) ('the BWM Convention').

[9] This is specified by IMO's Legal Committee in 'Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization', n 6, 56–57.

[10] Y Tanaka, 'Regulation of Greenhouse Gas Emissions from International Shipping and Jurisdiction of States' (2016) 25 *Review of European, Comparative and International Environmental Law* 337.

[11] IMO's Legal Committee, n 9, 56.

II. The Development of Part XII of UNCLOS

As described in chapter 3, UNCLOS, and particularly part XII of the Convention, reflects an evolution of international law, and consequently of the law of the sea, pertaining to protection of the marine environment. The statement made by Chairman Tommy Koh at the adoption of UNCLOS in 1982 may be recalled, in which he underlined that 'the Convention contains important new rules for the protection and preservation of the marine environment from pollution'. This evolution was made necessary following the technological progress of the international community, and its increased need for the transport of passengers and for the shipping of commodities and cargo between States, which led to more and bigger ships sailing the seas, leading to more pollution, including pollution of the atmosphere.

The special regulations under part XII reflect the shift in focus within the international community, compared to the 1958 Conventions (see chapter 3, section I), to address concerns regarding pollution from ships. Similar concerns can be traced back to the Action Plan adopted at the Stockholm Conference in 1972 (see chapter 1, section IV), where several of the Plan's 109 points have clear links to the broadened jurisdictions found in part XII of UNCLOS. For example, the general appeal for cooperation between States and for participating in the development of international rules for the protection of the marine environment, an appeal echoed in section 2 of part XII of UNCLOS, predominantly in article 197. Also, the specific reference in recommendation 86(b) of the Action Plan is to a considerable extent reiterated in article 217 of UNCLOS, concerning the extended obligations of flag States to ensure that ships flying their flags comply with such newly developed international rules for the protection of the marine environment. The precise wording of recommendation 86(b) was:

> *It is recommended* that Governments …:
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> …
>
> (b) Ensure that the provisions of such instruments are compiled with by ships flying their flags and by ships operating in areas under their jurisdiction and that adequate provisions are made for reviewing the effectiveness of, and revising, existing and proposed international measures for control of marine pollution …

This work to adapt international maritime law towards having an increased focus on ensuring flag State implementation and enforcement of international environmental rules resulted in the development of part XII of UNCLOS and the new legal principles rooted therein, including article 217.[12] Daniel Bodansky elegantly critiques this development, as follows:

> Despite these legal requirements, questions remain about the adequacy of flag state implementation. In part, this can be attributed to the development of flags of

[12] Y Tanaka, *The International Law of the Sea*, 2nd edn (Cambridge University Press, 2015) 276.

convenience, which may not accept international conventions such as MARPOL or be willing or able to enforce these standards adequately. But enforcement of international pollution standards has been limited, even by flag states that do accept international environmental conventions. Reporting to the International Maritime Organization on enforcement measures has been spotty at best. Even when flag states take enforcement action, the penalties imposed have often been insufficient to serve as a deterrent. UNCLOS III attempts to remedy these problems by making the legal obligations of flag states universal.[13]

III. Obligations to Cooperate in Protecting the Marine Environment

The first provision of part XII of UNCLOS, article 192, asserts that all States must protect and preserve the marine environment. Article 194 specifies that States must, individually or jointly, seek to prevent and reduce pollution from all sources affecting the marine environment.

States should also, pursuant to article 197, cooperate on a global and regional basis to develop international rules, standards, procedures and recommended practices for the protection of the marine environment. The reference to global cooperation could be to cooperation within the IMO, whereas cooperation on a regional basis could be within the EU.

Article 197 also calls on States to cooperate directly with one another, which may be done through the adoption of bilateral or multilateral agreements. An example of such direct cooperation is the north European cooperation within the OSPAR Commission,[14] where 15 countries[15] are parties to the OSPAR Convention,[16] which requires the parties to work together to protect the marine environment of the North-East Atlantic.[17] The Preamble to the OSPAR Convention denotes article 197 of UNCLOS as the basis for this cooperation.

[13] D Bodansky, 'Protecting the Marine Environment from Vessel Source Pollution: UNCLOS III and Beyond' (1991) 18(4) *Ecology Law Quarterly* 719, 742–43.

[14] See at https://www.ospar.org/.

[15] The 15 nations cooperating in the OSPAR forum are Denmark, Belgium, Finland, France, Ireland, Iceland, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom (UK) and Germany.

[16] The Convention for the Protection of the Marine Environment of the North-East Atlantic 1992 (adopted 22 September 1992, entered into force 25 March 1998) 2354 UNTS 67 (OSPAR Convention) is a codification of the Oslo Convention of 1972 on dumping (Convention for the prevention of marine pollution by dumping from ships and aircraft (adopted 15 February 1972, entered into force 7 April 1974, 13268 UNTS 5)) and the Paris Convention of 1974 on prevention of marine pollution from land based sources (adopted 4 June 1974, entered into force 6 May 1978) 1546 UNTS 103. Hence 'OSPAR'(Oslo/Paris).

[17] S Cole, MJ Ortiz and C Schwarte, *Protecting the Marine Environment in Areas Beyond National Jurisdiction – A Guide to the Legal Framework for the Conservation and Management of Biodiversity in Marine Areas Beyond National Jurisdiction* (Foundation for International Environmental Law and Development (FIELD), 2012) 22–23.

The duties for all States to cooperate in such environmental matters are repeated in article 198 and article 199 of UNCLOS. Article 198 compel States that becomes aware of a risk of pollution to inform all other States deemed likely to be affected by it.

Article 199 encourages all (coastal) States affected to work together to address and eliminate such pollution. It also suggests that (coastal) States should attempt to pre-empt such situations by making joint contingency plans for responding to any pollution incidents, likely in the form of agreements between neighbouring coastal States.

Article 211(1) and article 212(3) also stipulate that States should cooperate through the IMO[18] in establishing international rules and standards to prevent, reduce and control pollution of the marine environment from ships.

IV. Implementing International Rules and Adopting National Laws for the Protection of the Marine Environment

The general requirements of UNCLOS article 197, article 211(1) and article 212(3) for all States to participate in the development of international rules for the protection of the marine environment, for example through the IMO, are elaborated in article 211(2)–(6), under which flag States (article 211(2)) and coastal States (article 211(3)–(5)) are required subsequently to adopt national laws, including the implementation of international rules.

Article 211(7) obligates all States to inform coastal States whose coastlines or related interests may be affected by a pollution incident.[19]

Articles 212 and article 222 specifically relate to the implementation, adoption and enforcement of rules regulating *air pollution*, and are therefore discussed separately from article 211, in section V of this chapter.

A. Flag State Rules under Article 211(2)

A flag State is, in accordance with article 211(2), required to adopt national laws that *at least* offer the same level of protection as the international rules issued by the IMO.[20] The conclusion must be that flag States are therefore able to draft national laws containing environmental protection standards stronger than those under the international rules.

[18] Recalling that the reference to the 'international organization' is a direct reference to the IMO and the conventions and guidelines issued by that body. See IMO Legal Committee, n 6, 56.

[19] Art 217(7) will, due to its scope, not be examined further in this chapter.

[20] Tanaka, n 12, 292.

While article 211(2) enables a flag State to *prescribe* national legislation that applies to all ships under its flag, article 217 allows this legislation to be extraterritorially *enforced* and *adjudicated on* wherever these ships sail.[21]

Violations of such exclusive national flag State laws are not the subject of enforcement measures by other non-flag States.[22] If another State (eg a coastal State) actually has the same legislation applying within its territory as the flag State has imposed on ships under its flag, for example an implemented IMO regulation, then the other State will enforce that legislation in accordance with its own rules and not those adopted by the flag State.

It should be noted that part XII of UNCLOS also contains other obligations for flag States to implement very specific regulations, for instance on *dumping*, according to article 210(1), and on *reporting formalities* for ships sailing in another State's EEZ, pursuant to article 220(4). These implementation obligations are *lex specialis* compared to the general obligation concerning implementation in article 211(2).

B. Coastal State Rules in Internal and Territorial Waters under Article 211(3)–(4)

Coastal States have the same rights to create national laws for the protection of the marine environment in areas under their sovereignty, according to article 211(3)–(4) of UNCLOS. Article 211(3) covers national regulation in the State's *internal waters and ports*[23] and article 211(4) relates to national legislation in its *territorial waters*.

Article 211(3) reiterates the principle of a coastal State's having full sovereignty within its internal waters and ports pursuant to article 2 of UNCLOS, which gives it full territorial jurisdiction to prescribe legislation and to subsequently enforce and adjudicate on it. This includes penalising violations in this area with non-monetary penalties such as imprisonment (conversely, see article 230). The only precondition the coastal State must meet is to give *due publicity* to such rules.

Article 211(4) also refers to the codified exceptions for the territorial sea, which – as described in chapter 3 – mean that a coastal State's enforcement of its rules and regulations cannot hinder a foreign ship's privilege to exercise its

[21] The principles of prescribing, enforcing and adjudicating legislation are discussed in ch 6.

[22] It could be seen as conflicting with art 227 of UNCLOS (requiring equal treatment of all foreign ships) if a (coastal) State were to enforce foreign flag State legislation over foreign ships flying that flag within the (coastal) State's own waters, as it would amount to unequal treatment of foreign ships. Other (coastal) States can of course assist flag States in determining whether a violation of the flag State's exclusive national legislation occurred while the ship was sailing in its (the coastal State's) waters, eg by investigating. The prosecution and penalisation of the violation must, however, be carried out by the flag State.

[23] The reference to adopting national regulations in a port could in principle lead to use of the term 'port State'. Yet as art 211(3) also refers to the regulation of internal waters, the term 'coastal State' will be used when referring to that paragraph.

rights of *innocent passage* or *transit passage* in the territorial sea. To this end, the discussion of article 21(1)(f) and article 42(1)(b) in chapter 3 should be brought to mind.

Article 21(1)(f) allows coastal States to implement and adopt national environmental legislation applying to innocent passage, while article 42(1)(b) allows coastal States that border an international strait to adopt regulations pertaining to the prevention of pollution in the form of the discharge of oil, oily wastes and other noxious substances in the strait. However, unlike article 21(1)(f), article 42(1)(b) refers exclusively to the *implementation* of international regulations, such as MARPOL Annexes I and II. Article 42(1)(b) therefore does not allow coastal States to adopt national environmental legislation.

A coastal State's legislation adopted in accordance with article 211(3)–(4) can be enforced in accordance with article 220(1). Environmental legislation adopted pursuant to article 21(1)(f) can be enforced in accordance with article 220(2), while the international regulations implemented following article 42(1)(b) are enforced pursuant to article 233.

C. Coastal State Rules in the EEZ under Article 211(5)–(6)

Just as article 211(3)–(4) present coastal States with the basis for implementing international regulations and adopting national laws with higher standards of protection in their *internal waters* and *territorial waters*, article 211(5)–(6) regulate the possibility for coastal States to do the same in their *EEZs*.

Article 211(5) repeats the possibility of implementing *international* rules, such as MARPOL Annex VI, to give these effect in the EEZ.

Article 211(6) allows coastal States to establish *national* environmental legislation that applies to foreign ships in their EEZ. As this zone extends up to 200 nautical miles (nm) from the baseline, the requirements that coastal States must meet in order to adopt national rules in such a vast area are much more detailed, in accordance with article 211(6)(a)–(c), compared with those under article 211(3)–(4) regulating internal and territorial waters. For example, article 211(6)(a) requires that international rules for the protection of the marine environment developed pursuant to article 211(1) (and implemented in accordance with article 211(5)) must be *inadequate* to meet the *special oceanographical and ecological conditions* present in a *clearly defined area* of the EEZ.

The coastal State must submit scientific and technical evidence directly to the IMO to support and prove that there are such special conditions in a clearly defined area of the EEZ. The IMO must then within 12 months evaluate whether it agrees with the scientific assessments made by the coastal State relating to the need for additional national regulations.

If the IMO approves the adoption of national laws in that area of the EEZ the coastal State must implement these by using standards made available through the IMO, and must ensure that the rules do not become applicable to foreign vessels until 15 months after the submission to the IMO.

The reference to using IMO standards for designating such distinct areas in an EEZ links to the establishment of Particularly Sensitive Sea Areas (PSSAs). The criteria and standards for creating a PSSA are based on IMO Resolution A.982(24), 'Revised guidelines for the identification and designation of Particularly Sensitive Sea Areas', from 2005 (see also chapter 3). Section 7.4.2(1)(a)(*bis* iii) of the Resolution refers directly to article 211(6) of UNCLOS, as it requires coastal States intending to have an area designated as a PSSA to apply the same criteria as required by article 211(6). The legal basis in UNCLOS for establishing a PSSA is thus found in article 211(6).

Even so, the opposite conclusion cannot be drawn from this, that is, to automatically assume that all national pollution areas created in accordance with article 211(6) are inevitably designated as PSSAs. There is a possibility – albeit a somewhat theoretical possibility – that a coastal State may wish to invoke the article 211(6) procedure without necessarily deeming such an area a PSSA in accordance with IMO Resolution A.982(24). This book will therefore, when referring to national rules issued pursuant to article 211(6), not automatically refer to these rules as applying to a PSSA but merely as comprising 'national regulation'.

D. Coastal State Rules in an Ice-covered Area of the EEZ under Article 234

When clarifying the possibilities for coastal States to prescribe and enforce national legislation in their EEZs, attention must also be given to article 234 of UNCLOS.

This article provides a legal basis for coastal States that have 'ice-covered areas within the limits of the exclusive economic zone' to adopt non-discriminatory laws that aim to offer special protection of the marine environment in such areas of the EEZ.

Article 234 is applicable where:

> particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance. …

Consequently, the term 'ice-covered area' is defined as an area that is covered by ice 'for most of the year'. It is unclear exactly how many months this encompasses, but a strict interpretation of the wording leaves the impression that the term *most* implies more than half, meaning that the condition is fulfilled if an area is covered by ice for more than six months a year.

The applicability of article 234 also depends on the ice's hindering and presenting an exceptional danger to navigation, and that pollution could potentially cause major harm to or irreversible disturbance of the ecological balance in the area.

The consideration for the *ecological balance* repeats the concerns addressed in article 211(6) regarding *ecological conditions*. Both articles furthermore underline that these assessments of the ecological conditions should be based on scientific data.

Yet article 234 sets itself apart from article 211(6) by not requiring coastal States to present the scientific evidence to the IMO, nor requiring IMO approval of the intended national regulations. There is also no specification of an implementation period during which foreign ships are exempt from complying with the national rules.

The legal basis for coastal States' prescribing and enforcing national laws for marine protection in their EEZ is therefore wider in article 234 than in article 211(6), provided the physical requirements are met with regard to there being ice for most of the year that presents a danger in a sensitive ecological area.

Some ice-covered areas, such as the polar regions (Arctic/Antarctic), have been deemed regions that need special protection, which the IMO seeks to provide.[24] For example, regulation 43 of MARPOL Annex I prohibits the use and transport of oil with certain characteristics (viscosity, etc) in the Antarctic; and the mandatory provisions of the International Code for Ships Operating in Polar Waters (the Polar Code) require ships sailing in polar waters to adhere to the additional protective safety and environmental measures of the Code.[25]

V. Special Regulations on Air Pollution: Article 212 and Article 222

UNCLOS part XII contains two distinct provisions pertaining to air pollution from ships, which should be read and reviewed in conjunction with each other.

Article 212 and article 222 require States not only to implement international rules on air pollution, but also to adopt national rules regulating such damaging emissions, and to enforce these in areas under their sovereignty.

A. The Obligation to Adopt Regulations on Air Pollution from Ships under Article 212

Article 212(1) of UNCLOS permits all States, similar to article 211(2)–(5), to adopt national laws on reducing air pollution, making these 'applicable to the air

[24] Other intergovernmental organisations also work on preserving the Artic environment, such as the Arctic Council – see at https://www.arctic-council.org/index.php/en/.

[25] The Polar Code was implemented in the SOLAS Convention (International Convention for the Safety of Life at Sea (SOLAS) 1974 (adopted 1 November 1974, entered into force 25 May 1980), 1184, 1185 UNTS 2) and the MARPOL Convention, and entered into force on 1 January 2017.

space under their sovereignty and to vessels flying their flag or vessels or aircraft of their registry'. This is supplemented in article 212(2) with a reference to 'other measures' for achieving such reductions, which could comprise voluntary national guidelines and standards.

Article 212(3) encourages all States, like article 197 and article 211(1), to participate in the establishment of global rules and standards, including through the IMO, for preventing and controlling air pollution from ships.

B. The Obligation for all States to Implement MARPOL Annex VI under Article 222

Article 222 of UNCLOS refers directly to the enforcement of the national rules and regulations adopted by coastal and flag States in accordance with article 212(1). The provision also requires those States to implement international IMO rules and standards applicable to areas under their sovereignty and ships under their flags.

Article 222 therefore represents a *lex specialis* obligation on all States (flag, port and coastal) to *implement* MARPOL Annex VI. It is also the legal basis for requiring these States to implement the IMO's future rules and regulations for reducing GHG emissions from ships.

Article 222 also reads, at the outset, as a *lex specialis* obligation for all States to *enforce* regulations on air pollution, including those adopted according to article 212 and those implementing regulation 14 of Annex VI.[26] Obviously, the scope of article 222 therefore needs be examined in further detail, as the purpose of this book is to determine how international regulation of air pollution (primarily sulphur and GHG emissions) can be enforced. To this end a distinction must be made between the legal basis the regulations provide for *flag States* and for *non-flag States* (ie port and coastal States).

C. No Clear Guidance on Flag State Enforcement of MARPOL Annex VI under Article 222

In accordance with article 212, article 222 is the *lex specialis* obligation for flag States to *prescribe* (implement) international regulations on air pollution such as MARPOL Annex VI. Article 222 must, in principle, also be considered *lex specialis* regarding the obligation for flag States to *enforce* these rules, including regulation 14 of Annex VI.

Although this article does not directly refer to enforcement by the flag State irrespective of where a ship under its flag is sailing, an implicit extraterritorial

[26] IMO Legal Committee (IMO LEG) argues that art 212 – and thereby art 222 – includes air pollution as regulated in MARPOL Annex VI, including SOx and NOx pollution; see reg 14 and reg 13 of MARPOL Annex VI. See IMO Legal Committee, n 6, 80.

basis is found within this provision, given the simple reference in it to enforcement with regard to 'vessels flying their flag'.

That being said, neither article 222 nor article 212 includes any specifications on how flag States should enforce and what constitutes effective flag State enforcement of such air pollution regulations. These non-descriptive articles should therefore, in the view of this author, be applied in conjunction with the overall, yet detailed, requirements of article 217 for flag State enforcement of all legislation for the protection of the marine environment, also encompassing MARPOL Annex VI. Article 217 contains, for example, specific obligations for effective extraterritorial enforcement and for furnishing information thereon to the IMO and all States, etc.[27]

Article 217 should thus be the *de facto measuring scale* for determining whether a flag State's enforcement of international or national rules on air pollution, including regulation 14 of Annex Vi, has been effective.

Flag States are consequently required to effectively enforce MARPOL Annex VI in accordance with article 222 pursuant to article 217, irrespective of where these violations occur. Article 217 is analysed in the next chapter.

D. No Extraterritorial Jurisdiction for Non-flag States to Enforce Annex VI under Article 222

Article 222 of UNCLOS stipulates that all States, including port and coastal States, are obliged to *prescribe* (implement) MARPOL Annex VI. The geographical scope of article 222 is, however, rather limited regarding *enforcement* by non-flag States, as it explicitly refers to such regulation's being enforced 'within the air space under [the] sovereignty' of a State.

This sovereignty encompasses, according to article 2(2) of UNCLOS, 'the air space over the territorial sea as well as … its bed and subsoil', as under article 2(1) (coastal) States have sovereignty in internal and territorial waters, with the exceptions described in chapter 3 applying to the latter (territorial sea) according to article 2(3).

In other words, article 222 provides *no* extraterritorial jurisdictional for port or coastal States to enforce air pollution regulations, such as MARPOL Annex VI, outside areas under their sovereignty, for example in an EEZ or on the high seas. Article 222 simply reiterates basic principles of international law, as it confirms that all (port and coastal) States can enforce and adjudicate on prescribed laws in

[27] Dr Erik Molenaar and Professor Henrik Ringbom have expressed similar views regarding the limitations of art 212 and art 222. E Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (Kluwer Law International, 1998) 507 and 512; H Ringbom, 'Enforcement of the Sulphur in Fuel Requirements: Same, Same But Different', available at https://webcache.googleusercontent.com/search?q=cache:EBk8-0aReA0J:https://www.duo.uio.no/bitstream/handle/10852/61600/SO-Artikel-Ringbom.pdf%3Fsequence%3D4%26isAllowed%3Dy+&cd=1&hl=da&ct=clnk&gl=no, 10–11.

areas under their sovereignty. Article 222 therefore does *not* offer an extraterritorial jurisdictional solution for ensuring that violations of regulation 14.1 can be effectively enforced on the high seas too.

The legal basis for coastal States to enforce MARPOL Annex VI in the EEZ must be found in article 220(1), which is discussed in chapter 9. The legal basis for port States to enforce regulation 14.1.3 of Annex VI on the high seas must be found in article 218(1), as analysed in chapter 10.

E. Summary of the Applicability of Articles 212 and 222 to Implement and Enforce Annex VI

Article 212 allows all States to adopt national regulations on air pollution from ships, although article 212(3) also refers to developing such rules on an international scale through cooperation at the IMO.

Article 222 obligates all States to implement international regulations on air pollution, such as MARPOL Annex VI.

Article 222 also refers to all (flag, coastal and port) States enforcing these nationally adopted and internally implemented regulations.

However, article 222 contains no specific references as to how flag States should enforce such regulations, so that a flag State's enforcement of MARPOL Annex VI should be supplemented by application of the general and always applicable, but also very detailed, requirements of article 217.

Also, article 222 does not grant coastal or port States any broadened extraterritorial jurisdiction to enforce MARPOL Annex VI, and other regulations on air pollution, outside the territorial sea. Articles 220 and 218 are therefore key for ensuring enforcement by non-flag States of regulation 14 of Annex VI in EEZs and on the high seas.

VI. Legal Basis for Adopting National Sulphur Limits and Scrubber Rules

Putting aside the implementation and enforcement of MARPOL Annex VI for a brief moment, the previously discussed article 211 and article 212 (with article 222) should be studied to determine the applicability of these provisions to allow all States to establish national sulphur regulations pertaining to sulphur limits and limitations on the use of Exhaust Gas Cleaning Systems (EGCSs), particularly regarding the use of *open loop scrubbers*.[28]

[28] See ch 2 for a description of EGCSs such as open loop scrubbers.

A. Flag States Adopting National Sulphur and Scrubber Rules

Flag States can, according to article 212 of UNCLOS, adopt national sulphur limits applying to ships under their flags. Article 212 is *lex specialis* compared to article 211(2) when it comes to adopting rules regulating *air pollution* such as sulphur emissions from ships. Nevertheless, only the flag State would enforce these regulations, as the principle of 'no more favourable treatment' only applies to international rules, such as MARPOL Annex VI. Obviously, a flag State's national sulphur limits should therefore not be enforced during PSC, while the limits set out in regulation 14 of Annex VI always should. The flag State must therefore, in principle, wait until a ship under its flag returns to the flag State and its jurisdiction before any violations of the national sulphur limit can be penalised.

Should a flag State wish to regulate how ships under its flag use an EGCS then this must be effected in accordance with article 211(2). It will be recalled from chapter 2 that flag States, pursuant to regulation 4 of Annex VI, must approve all EGCSs that are installed in ships under their flag, which limits the need to adopt separate flag State rules on the use of these systems.

B. Coastal States Adopting National Sulphur and Scrubber Rules in Internal Waters and in the Territorial Sea

Coastal States can, in accordance with article 212(1), adopt national sulphur limits applicable in ports, internal waters and in the territorial sea – with general exceptions applied to the last of these. Article 212 is *lex specialis* compared to article 211(3)–(4), as it concerns pollution of the atmosphere.

Taiwan[29] and several Chinese port areas around Shanghai, Ningbo, Zhoushan and the Yangtze River Delta[30] were among the first to opt for this solution by creating national 0.5% sulphur zones in internal and territorial waters. That is, areas where the general 3.5% limit would normally be applied in accordance with regulation 14.1.2 of MARPOL Annex VI.

On 1 January 2019, China implemented regulation 14.1.3 of Annex VI, 12 months ahead of the IMO's deadline, by setting a 0.5% sulphur limit in all its territorial waters.[31]

Article 21(1)(f) of UNCLOS allows the coastal State to adopt national rules and implement international rules for the protection of the marine environment

[29] See at https://www.ukpandi.com/knowledge-publications/article/taiwan-to-implement-0-5-sulphur-cap-from-1-january-2019-142785/.

[30] See at http://www.nepia.com/insights/industry-news/china-emission-control-areas-starupdatestar/.

[31] See at https://lloydslist.maritimeintelligence.informa.com/LL1123230/China-to-expand-ECA-to-cover-all-territorial-waters.

applying to foreign ships making an *innocent passage* in accordance with articles 17–19, which could encompass national sulphur limits adopted according to article 212 and thereby already applicable to the territorial sea for non-innocent sailing, such as to and from a port. As mentioned in chapter 3, such national regulations must contain an explicit reference to its also applying to innocent passage, to allow it to be enforced in accordance with article 21(4). A coastal State cannot adopt national sulphur rules applicable in an international strait, as article 42(1)(b) only refers to *implementation of international rules* and only refers to the discharge of *oil and other noxious substances*. If a coastal State wishes to set stronger limits on the use of EGCSs in internal and territorial waters, for example pertaining to discharge from open loop scrubbers, this must be done in accordance with article 211(3)–(4). Singapore,[32] China, the US (in California and Massachusetts) and several European countries, including Belgium and Germany,[33] have used the legal basis of article 211(3) for making stricter regulations on the use of open loop scrubbers in their ports and internal waters.[34]

National laws on the use of open loop scrubbers in internal waters can provide for the complete banning of the use of such systems, as well as applying stricter criteria and (pH) limits for the wash water continuously discharged from such systems, provided the coastal States give 'due publicity to such requirements' and inform the IMO.

Coastal States cannot adopt regulations that de facto ban the use of the open loop scrubber technology for ships making an innocent passage in the territorial sea (see article 21(2)).

C. Coastal States Adopting National Sulphur and Scrubber Rules in the EEZ

Initially, the geographical applicability of article 212(1) and article 222 must be recalled, as it is limited to prescribing and enforcing national laws on air pollution in areas under the sovereignty of the coastal State such as internal and territorial waters in accordance with article 2 of UNCLOS which, of course, excludes the EEZ.

Any national regulations on sulphur, be they lower (ie stricter) sulphur limits or strengthened open loop scrubber standards, must therefore be adopted in accordance with article 211(6). Or in accordance with article 234 if parts of the EEZ are ice-covered (see section IV.D).

[32] See at https://www.mpropulsion.com/news/view,singapore-bans-use-of-openloop-scrubbers-in-port_56074.htm.

[33] A Proelß and VJ Schatz, 'Rechtliche Vorgaben zum Umgang mit Schiffsabwasser Völker-, unions- und nationalrechtliche Anforderungen an Einleitungen von Scrubber-Abwasser, Ballastwasser und häuslichem Abwasser durch Schiffe', Project no 99836 (University of Hamburg, 2019) 31.

[34] See at https://splash247.com/china-to-ban-open-loop-scrubbers-along-its-rivers/.

Article 211(6)(a) allows a coastal State to adopt national laws in its EEZ if international rules are inadequate to meet the special oceanographical and ecological conditions present in a clearly defined area of the EEZ. This must be accepted by the IMO through the submission of scientific and technical evidence.

This means that, in theory, a coastal State could adopt national laws stipulating a lower sulphur limit in the EEZ.[35] However, because of the characteristics and interactions of sulphur pollution as described in chapter 1, it might be difficult to provide scientific data that prove that sulphur emissions from ships in an EEZ have a verifiable negative impact on the oceanographical and ecological conditions in that area.[36]

The applicability of article 234 for adopting a national sulphur emission limit must rest on the same presumptions, as it should be considered doubtful that scientific evidence will prove that the release of SOx particles into the atmosphere has a particularly adverse effect on ice-covered areas. Although IMO approval is not needed, the relevant scientific data and evidence must still be presented.

Regarding potential national regulations on EGCSs, article 211(6)(c) emphasises that the national laws may relate to 'discharges or navigational practices but shall not require foreign vessels to observe design, construction, manning or equipment standards other than generally accepted international rules and standards'. The wording of article 211(6)(c) leaves a knife-edge legal basis for coastal States to balance on if they wish to prohibit the use of *open loop scrubbers* in an EEZ, as many States already have done in their ports and internal waters. On one hand, coastal States may not adopt special national technical or design rules that ban the open loop scrubber technology, or its use, in the EEZ. On the other hand, coastal States could in principle, if they can present the necessary scientific data, obtain IMO approval for setting more stringent discharge (wash water) limits in an area of the EEZ where special oceanographical and ecological conditions make it necessary.[37]

This would also be supported by the general principle embodied in article 195 of UNCLOS, stating that all States have a duty, when adopting rules for the protection of the marine environment, *not to transform one type of pollution into another type of pollution*. This covers not transforming sulphur pollution of the atmosphere in to sulphur pollution of the sea by setting open loop scrubber discharge criteria that are too relaxed.

It must therefore be assumed that if a coastal State can provide the compulsory scientific data that unequivocally shows the need for setting more strict wash-water

[35] See also Dr Erik Molenaar, who points out that the IMO would presumably advise the State in question to become party to MARPOL Annex VI to allow for designation of a (Sulphur) Emission Control Area ((S)ECA) zone, rather than an art 211(6) area (PSSA): Molenaar, n 27, 509.

[36] See the similar discussion in ch 9, section I.D, regarding whether air pollution (eg sulphur pollution) can result in – or threaten to cause – significant pollution of the marine environment in a coastal State's EEZ as required under art 220(5).

[37] See at http://www.egcsa.com/technical-reference/what-is-the-ph-of-the-water-discharge(d)-from-an-exhaust-gas cleaning system-into-the-sea/.

limits in a clearly defined area, then this could result in IMO-approved national regulations on the use of open loop scrubbers while sailing in the EEZ.

It should be noted that any national laws *prescribed* (adopted) in accordance with article 211(6) can be *enforced* by coastal States in their EEZ in accordance with article 220(3)–(7), pursuant to article 220(8).[38]

Article 234 may, like article 211(6), have a key role to play when determining coastal States' jurisdiction for legislating on discharges from open loop scrubbers. A coastal State with ice-covered parts in its EEZ should, according to article 234, be able to adopt more stringent wash water discharge limits, without IMO approval, provided the best available scientific evidence deems it necessary.

This could also encompass a complete ban or prohibition on the use of open loop scrubbers, as article 234 does not include the same restriction as under article 211(6)(c) pertaining to the adoption of national technical and design requirements. Article 234 merely demands that *due regard to navigation* must be ensured.

The opposite scenario could in theory also be envisioned, as some studies show that scrubber systems remove not only high percentages of SOx and NOx, but also particle matter (PM) and, perhaps, also Black Carbon particles, as these could be particular harmful in ice-covered areas.[39] If this is the case, a coastal State may actually require the use of scrubber systems, most likely *closed loop scrubbers*, by ships when sailing in these areas.

VII. Unlawful for States Parties to Annex VI to Lower Protection Standards

It should, on a final note, be stressed that the regulations in articles 211, 212, 222 and 234 of UNCLOS do not allow States that are parties to MARPOL Annex VI to set sulphur limits that are higher than those under regulation 14. The same principle applies to the adoption of national discharge limits on open loop scrubbers that allow more pollutants from the scrubber system to be released into the sea.

A State that is 'merely' a signatory of MARPOL Annex VI also cannot adopt national rules that lower the protective scheme of Annex VI, for example by relaxing the sulphur limits or discharge standards, as this 'would defeat the object and purpose of a treaty' (see article 18(a) of the Vienna Convention on the Law of Treaties).[40]

[38] Art 220 is analysed in chapter 9.

[39] See IMO, *Investigation of appropriate control measures (abatement technologies) to reduce Black Carbon emissions from international shipping* (2015), IMO study report by Litehauz in cooperation with DA Lack, Boulder University, Colorado/J Thuesen and R Elliot, ERRIA, DK. The report was finalised by the authors on 20 November 2012 and published by the IMO in 2015. Available at http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Documents/Air%20pollution/Report%20IMO%20Black%20Carbon%20Final%20Report%2020%20November%202012.pdf.

[40] Vienna Convention on the Law of Treaties 1969 (adopted 22 May 1969, entered into force 27 January 1980) 1155 UNTS 331 (VCLT).

VIII. National Regulations on Greenhouse Gases

The principles of articles 211, 212 and 222 of UNCLOS already discussed would apply not only to the implementation and adoption of sulphur regulations, but also to regulations on GHG emissions.

More specifically, a ship's emission of GHGs would also constitute *air pollution* covered by articles 222 and 212, which would be the legal basis for requiring coastal States and flag States to implement any IMO regulations on GHG. This would also allow all States to adopt stronger GHG (CO_2) emission limits for ships under their flag and in internal and territorial waters. A State could also unilaterally adopt more ambitious overall GHG targets than those accepted by the IMO at MEPC 72 in April 2018.

Coastal States could, regarding the EEZ, implement international GHG rules according to article 211(5), and adopt more stringent national limits pursuant to article 211(6), and enforce these in accordance with article 220(8). Adopting national GHG regulations pursuant to article 211(6) would, however, require scientific data that prove the negative impact from GHGs on the ecological conditions of the EEZ, which might be difficult to achieve. It would also necessitate IMO approval, unless the EEZ is ice-covered in accordance with article 234.

The previously described distinction between adopting national regulations on sulphur *limits* and sulphur *technology* (EGCSs) would also, if relevant, apply to GHGs.

IX. Conclusion

Part XII of UNCLOS encourages all States to cooperate, particularly through the IMO, in establishing international rules for the protection of the marine environment.

Section 5 of part XII contains obligations for all States to *implement* international rules and regulations for the protection of the marine environment, such as MARPOL Annex VI and future IMO regulations for the reduction of GHGs.

Articles 211 and 212 of section 5 allow all (flag, port and coastal) States to *adopt* national laws for the protection of the marine environment, provided these include a higher protection standard than the international regulations, such as lower sulphur limits than those set out in regulation 14 of MARPOL Annex VI.

The coastal States' possibilities for adopting national regulations on air pollution are geographically limited to internal and territorial waters according to article 212. National regulations in the EEZ can be adopted in accordance with the procedure set out in article 211(6) or, if applicable, article 234. This could, in theory, include national regulations on air pollution, but it would require scientific evidence that proves a negative impact from air pollution (eg sulphur pollution) on the ecological conditions of the EEZ, which is considered difficult to achieve.

The *enforcement* of these international implemented – and national adopted – regulations and laws on air pollution is at the outset enforced through article 222, found in section 6 of part XII. This means that article 222, in principle, provides the legal basis for flag, coastal and port States to penalise violations of the 0.1% and 0.5% sulphur limits in Annex VI and any regulations adopted at a national level in accordance with article 212(1).

However, although article 222 refers to the implementation and enforcement of regulations, such as regulation 14 of MARPOL Annex VI, it sets out certain clear limitations on enforcing this effectively. First, article 222 provides no extra-territorial jurisdiction for *non-flag States* to penalise violations outside of internal and territorial waters, such as in the EEZ and on the high seas. The regulations applicable in these areas under MARPOL Annex VI, including the 0.5% limit on the high seas, must therefore be enforced in accordance with the general jurisdiction for coastal States pursuant to article 220 (see chapter 9) and the special extended jurisdiction for port States according to article 218 (see chapter 10).

Second, even though article 222 also refers to *flag States'* enforcement of rules on air pollution, it includes no details on what this enforcement should comprise. Article 222 must therefore, in the view of this author, be used in conjunction with article 217 when determining how a flag State should proceed against MARPOL Annex VI violations, including violations of the 0.5% sulphur limit on the high seas. Article 217 is a general provision that refers to enforcement of all legislation for the protection of the marine environment, including air pollution. It also contains specific obligations that a flag State must meet when enforcing this legislation. Article 217, and its eight paragraphs, is therefore analysed in the next chapter.

8

Special Obligations of the Flag State: Article 217

As concluded in the last chapter, flag States are under a general obligation to implement international and national rules for the protection of the marine environment pursuant to article 211(2) of UNCLOS.[1] The *lex specialis* right for flag States to adopt national legislation to prevent air pollution from ships is found in article 212(1), and the legal basis for enforcing this, and for implementing and enforcing international rules on air pollution, is established in article 222.[2] Flag States must therefore implement and – in principle – enforce MARPOL Annex VI in accordance with article 222 of UNCLOS when becoming party to the Annex.

Although the obligation to implement and prescribe the international regulations in national law is very clear, the reference in article 222 to enforcing these rules is non-specific, merely stating that flag – and other – States *shall enforce* these rules.

To avoid a discrepancy between flag State enforcement of International Maritime Organization (IMO) regulations on air pollution (such as MARPOL Annex VI[3]) and non-air pollution regulations (such as MARPOL Annexes I–V), all IMO regulations for the protection of the marine environment[4] should, as discussed in chapter 7, be subject to the same detailed demands for effective flag State enforcement imbedded in the eight paragraphs of article 217.

Article 217 thereby occupies an unusual position as *lex specialis* compared to the overall principles requiring flag State intervention pursuant to articles 92 and 94 of UNCLOS when dealing with enforcement of the IMO's environmental regulations in general. And at the same time, article 217 is also *lex generalis* when

[1] United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3. See Y Tanaka, *The International Law of the Sea*, 2nd edn (Cambridge University Press, 2015) 292.

[2] Special duties to implement *lex specialis* regulations on dumping or reporting formalities are also imposed on the flag State in accordance with art 210 on dumping and art 220(4) on reporting formalities in an EEZ.

[3] International Convention for the Prevention of Pollution from Ships (adopted on 11 February 1973, as modified by the Protocol of 17 February 1978, entered into force 2 October 1983), 1340 UNTS 61 (MARPOL), Annex VI, IMO Publication: IMO-520E.

[4] Recalling from ch 3 that art 1(1)(4) defines pollution of the marine environment as including pollution that has an adverse effect on human health, eg air pollution.

dealing with IMO rules on air pollution, filling in the legal vacuum left by the wording of article 222 when determining flag State responsibilities.

Article 217(1)–(8) therefore form the legal basis by which a flag State must abide when bringing enforcement proceedings following violations of the sulphur limits under MARPOL Annex VI, regulation 14, committed by ships under its flag. The provision also serves as a scale of measurement for determining if a flag State's enforcement has been effective.

Article 217 will also be the basis for determining flag State enforcement of future IMO legislative measures on greenhouse gases (GHGs), regardless of whether these focus on reducing air pollution (GHG/CO_2) by using zero-carbon or fossil-free fuels, or focus on reducing GHGs by performance-based measures such as speed optimisation or revising the Energy Efficiency Design Index (EEDI) for certain ships.[5] The scope of article 217 embraces all of these possible regulatory adoptions.

I. Obligation to Enforce Effectively: Article 217(1)

In accordance with article 217(1), flag States must ensure that ships under their flags comply with national and international rules for the protection of the marine environment, which includes MARPOL Annex VI. Article 217(1) further specifies that 'Flag States shall provide for the effective enforcement of such rules, standards, laws and regulations, irrespective of where a violation occurs.'

This establishes two clear requirements that flag States must fulfil when enforcing legislation for the protection of the marine environment:

(a) the flag State enforcement must be *effective*;
(b) a flag State must enforce the regulations, etc *wherever* a ship under its flag commits a violation, including on the high seas.

As a result, pursuant to article 217(1), flag States are required to effectively enforce the stricter 0.5% sulfur limit under regulation 14.1.3 of Annex VI for violations on the high seas too.

The *second requirement* does not bar other (coastal or port) States from also assuming jurisdiction over a violation committed by a – in their view – foreign ship. It merely reflects that flag States will always have overlapping (competing) jurisdiction with these States over such violations. The legal basis for determining which State can assume primary (final) jurisdiction is provided for in article 228(1), which is analysed in chapter 11.

[5] The proposed measures for future IMO regulation of GHG reduction – following the IMO's 2018-adopted GHG reduction strategy – are described in Part III of this book, which also considers how these may be enforced through UNCLOS.

The *first requirement* of article 217(1) is worth examining further regarding what constitutes *effective* enforcement.

It should be noted that flag States are not subject to the restrictions under article 230 of UNCLOS. An article which specifies that only monetary penalties can be imposed for violations taking place outside territorial waters, as the scope of the provision is limited to *foreign* ships, therefore not encompassing the exercise of flag State jurisdiction. Reaffirming that flag States can – in principle – take action against violations that includes criminal penalties such as imprisonment, although this is seldom seen. Except in cases where violations cause major damage to the marine environment and it can be attributed to a deliberate act or, at minimum, gross negligence. Nonetheless, the possibility for flag States to impose criminal sanctions exists, and article 228(3) allows flag States to impose their own penalties, such as imprisonment, even though the shipowner has already been penalised by the imposition of a fine, detention, etc by a coastal or flag State.[6]

Despite the theoretical possibility of imposing a prison sentence, violations of the IMO's environmental regulations are normally met with monetary sanctions (fines) by flag States. Such flag States have a natural extraterritorial jurisdictional *right* to impose fines for violations, irrespective of where these occur, pursuant to the flag State principle codified in article 217(1). Evidently, the wording of the provision, requiring that flag States 'shall ensure compliance by vessels flying their flag' and 'shall provide for the effective enforcement', clearly stipulates that it is also an *obligation* for flag States to ensure effective enforcement.

Section I.A will study what *effective flag State enforcement* comprises, with a focus on determining which minimum criteria must be met to establish that a fine, imposed by a flag State for a violation of the sulphur limits under regulation 14 of Annex VI, can be deemed *effective*, thereby allowing the flag State to fulfil the first requirement in article 217(1).

A. What is an *Effective* Flag State Fine under Article 217(1)?

Effective is a very open-ended term, but the principles of article 18 of the EU Sulphur Directive[7] (described in chapter 5) offer, in the opinion of this author, clear and unequivocal guidance on the basic principles that should be relied on for fines imposed for violations of the MARPOL Annex VI sulphur limits. This is (also reiterating what is said in chapter 5) based on article 18's representing a *subsidiary means for the determination of rules of law*, as it implements the MARPOL Annex VI limits and was developed by the EU, which could be considered a *highly qualified publicist* within international law. The International Court of Justice (ICJ)

[6] Art 228(3) and art 230 are both examined in ch 12.

[7] Directive (EU) 2016/802 of the European Parliament and of the Council of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels [2016] OJ L132/58.

could therefore, in accordance with article 38(1)(d) of the ICJ Statute,[8] apply the principles of article 18 of the Sulphur Directive when determining whether a flag State's enforcement against a violation of regulation 14 of Annex VI was to be considered effective pursuant to article 217(1) of UNCLOS.[9]

Another, and more simple way, of viewing this is that the principles of article 18 represent common principles of law – and of common sense – as they dictate that it should not be possible to benefit from committing a crime, or plotting to do so.

The principles of article 18 of the Sulphur Directive are therefore applicable to determine the effectiveness of non-EU States' enforcement of the 0.1% and 0.5% sulphur limits in regulation 14 of MARPOL Annex VI.

It should be recalled that article 18 requires sanctions to: be effective; be proportionate; be dissuasive; at least strip the economic gains from the infringement; and gradually increase in the event of repeated infringements. One of the most important of these criteria is that *all economic gains made by the infringement are removed*, especially considering the enormous potential savings to a shipowner from a violation of the sulphur limits (eg a $750,000 saving on a single trip from Asia to Europe).

This part of the fine – sometimes addressed separately as *confiscation* – needs to be supplemented with a *punitive element* as a punishment for the violation itself. A punitive element must always embody the remaining criteria of article 18, being effective, proportionate, dissuasive and gradually increasing in the case of recidivism. Such a punitive element is important, as it removes the incentive for shipowners who might otherwise dare to be non-compliant. If a fine 'merely' removes the savings from a violation, or the supplementing punitive element is not high enough, it could lead to shipowners' weighing the risks of getting caught during a Port State Control (PSC) (and the potential fine) against the potential savings. It is therefore necessary for the fine to be *dissuasive*, which should ensure that it is also *effective*.

Ensuring that a fine is dissuasive is also in alignment with article 4(4) of the MARPOL Convention, which requires that all parties, including flag States, prescribe penalties for violations of the Convention that are 'adequate in severity to discourage violations of the present Convention and shall be equally severe irrespective of where the violations occur'. This also applies to enforcement of the Annexes to the MARPOL, including Annex VI (see article 1(2) of the Convention).

Article 217(8) of UNCLOS further underlines that the flag State's national laws and regulations for sanctioning violations should allow for penalties that are 'adequate in severity to discourage violations wherever they occur', emphasising that a flag State's *effective enforcement* pursuant to article 217(1) includes imposing dissuasive (discouraging) penalties.

[8] The ICJ Statute is available at https://www.icj-cij.org/en/statute.

[9] The ICJ is one the judicial entities that, according to art 287(1), can settle a dispute regarding interpretation of UNCLOS, eg on the applicability and scope of art 217(1). Art 287, and the other dispute settling mechanisms of pt XV of UNCLOS, is discussed in ch 12.

The requirement in article 18 of the Sulphur Directive for the flag State authorities to exercise *proportionality* when sanctioning could be seen as a double-edged sword. On the one hand, a procedural safeguard that bars the authorities from imposing an unjustly (disproportionate) high fine for the offence, but on the other hand requiring the authorities to impose a fine that removes all savings and includes a punitive element since otherwise it would be an unjustly (disproportionate) low punishment given the crime. Authorities are often skilled in exercising such proportionate sanctioning, as this requirement also applies to the imposition of all penalties, whether criminal sanctions or PSC sanctions.

The principles of effectiveness, dissuasiveness and proportionality also require that fines should always take into account any aggravating or mitigating circumstances. *Repeated infringements* are always seen as an aggravating circumstance, which naturally leads to an increased fine as it reflects a *mens rea* (a guilty mind) that should be penalised more harshly than a first-time offender who exceeds the limit by only a small amount, who could more easily plead mitigating circumstances.

The severe penalties for recurring infringements are extremely important when enforcing the 0.5% sulphur limit, as the savings from infringements can be gargantuan, and any indication that shipowners are likely to reoffend should be met with equally dissuasive punishment.

Many States account for *aggravating circumstances* when calculating a fine by simply multiplying the normal (effective, proportionate and dissuasive) fine by a predetermined factor.

It should be noted that the concept of repeated infringements should *not* be interpreted simply as referring to the same ship's repeating the same violation of either the 0.1% or the 0.5% sulphur limit. If different ships under the same shipowner repeatedly violate any of the sulphur limits under regulation 14 of Annex VI with a 'guilty mind' (ie not involving minor exceedances), this must be viewed as a *repeated infringement* by that shipowner. This is based on the accountability of shipowners for their ships, as the owners bear the legal responsibility[10] for ensuring that all ships in their fleet abide by all relevant rules, including those implemented by the flag State in accordance with article 222. The shipowner also has the power and responsibility to instruct the masters and crews on board the ships to comply with all regulations, and to ensure that they are able do to so by laying down relevant procedures and instructions, for example pertaining to the planning of fuel purchases or fuel changeovers when entering a SECA zone.

Finally, the shipowner is normally the entity that stands to gain from a ship's non-compliance, as the shipowner pays for the fuel purchased and therefore reaps the savings from buying non-compliant fuel; savings that can be used to generate

[10] There are numerous different ways of changing the legal responsibilities of shipowners by entering into different agreements on chartering, etc. These different possibilities are within the realm of private law and are not covered in this book, the reference to the 'shipowner' being used as a term for the legal entity responsible for any non-compliance by the ship.

greater profits, enabling the company (shipowner) to offer lower freight rates than compliant competitors, thereby creating an uneven playing field.

When it comes to determining how many violations the word 'repeated' covers, a strict interpretation indicates that it is more than one, making two violations 'repeated violations'. Then again, the principle of proportionality dictates that the higher the number of repeated violations, the greater the fine (eg using the aforementioned predetermined multiplication factor, which increases in accordance with the number of violations).

The principle of proportionality also dictates that the size of the violation (the amount of sulphur) should be of relevance when calculating a fine, and when discussing recidivism. A substantial violation, for example by using 3.5% fuel instead of 0.5% fuel, is a clear indication of intent to violate, while the use of 0.53% fuel could indicate that the violation was not intentional, as such small instances of non-compliance can be the result of contaminated fuels or contaminated fuel systems. Minor violations should also be sanctioned, of course, but the principle of proportionality dictates that the sanction should be less severe, as the shipowner cannot achieve an economic benefit from such a violation.

Minor violations will in general not generate a profit, as the ship has bought expensive fuel that was labelled as compliant. And 0.53% fuel and those with similar specifications are not the most common fuel products. That being said, any leniency towards violations involving fuels of 0.60% and more should be subject to careful consideration, as shipowners could become astute blenders of different fuel types, which allows for savings and small-scale violations.[11]

Thus recidivism involving substantial breaches of the sulphur limit should be penalised more severely than recurring small-scale violations, as the former suggests the *mens rea* for non-compliance for profitable economic gains.

It should be noted that the term 'aggravating circumstances' can include circumstances other than repeated violations. For example, *wilful* and *serious* violations of the sulphur limit. These circumstances were just described in connection with the scale of sanctions for recidivism. If any such aggravating circumstances are present, the principle of proportionality dictates that these should be met with higher fines, for a first-time offender too. This means that a first-time offender that uses 3.5% fuel should be subject to a higher fine than a first-time offender that uses 0.53% fuel.

Finally, the principles of *effective flag State enforcement* according to article 217(1) of UNCLOS – harmonised through the explicit principles in article 18 of the Sulphur Directive – also apply to other aspects of sulphur enforcement, such as repeated violations of the regulations by use of a faulty or non-functioning EGCS system, falsified Bunker Delivery Notes (BDNs) or recurring

[11] Discussions at PPR5 and the intersessional PPR meeting in 2018 and PPR6 in 2019 revolved around applying a '95% confidence limit' by using ISO Standard 4259 when testing fuel samples, as this would allow a small measure of leniency towards such minor infringements.

misuse of the 'Fuel Oil Non-availability Report' (FONAR) system (including seeking out ports with no compliant fuel), etc. These principles of effective enforcement also apply to enforcement of all IMO regulations for the protection of the marine environment, and will apply to future IMO rules on measures for the reduction of GHG emissions.

Where a flag State fails to meet the requirements in article 217(1), it must automatically be considered to have 'disregarded its obligation to enforce effectively', which is relevant to the discussion of the two exceptions to final flag State jurisdiction laid down in article 228(1) (see chapter 11).

Proceeding with the dissection of article 217 of UNCLOS, the onus on flag States to enforce international environmental regulations effectively may start with article 217(1) but it does not end there, as article 217(2)–(8) also impose different enforcement obligations on the flag State that must be fulfilled. Thus, when assessing whether a flag State has enforced MARPOL Annex VI effectively, all the obligations set out in article 217 must be met, not just those in article 217(1).

II. Obligation to Detain Ships until they Comply with IMO Regulations: Article 217(2)

Flag States must, in accordance with article 217(2) of UNCLOS, take *appropriate measures* to ensure that ships under their flag are prohibited from sailing until they comply with the IMO's rules on environmental protection, including requirements in respect of the design, construction, equipment and manning of vessels.[12] This requires flag States to detain ships under their flag until they comply with all relevant regulations, such as MARPOL Annex VI.

The reference to *equipment* can also encompass EGCSs, thereby requiring the flag State to ensure that a ship equipped with such a system complies with all rules, including that the EGCS is fully functional and has been approved in accordance with regulation 4.1 of Annex VI and the Guidelines for Exhaust Gas Cleaning Systems (MEPC.184(59)).

The geographical scope of article 217(2) must nonetheless be somewhat limited, as a flag State cannot detain ships under its flag when those are sailing outside the flag State's own waters. A flag State could, in principle, pursue, stop and detain ships under its flag on the high seas, but the practical implications

[12] The reference to *design* could be relevant when ensuring flag State enforcement of the EEDI requirements of ch 4 of MARPOL Annex VI. The references to *construction* and *manning* could be seen as references to the International Convention for the Safety of Life at Sea (SOLAS) 1974 (adopted 1 November 1974, entered into force 25 May 1980) 1184, 1185 UNTS 2 and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 (adopted 7 July 1978, entered into force 28 April 1984) 1361, 1362 UNTS 2, as violations of these could result in accidents at sea, which again could lead to pollution of the marine environment.

seem insurmountable, and this option cannot be considered a realistic approach to enforcement.

The possibility to detain a ship in accordance with article 217(2) must be when it is in a port, or in the internal or territorial waters of a flag State. Exceptions to this could entail a flag State's entering into bilateral or multilateral agreements with other (port) States, allowing the flag State to carry out inspections of ships under its flag while these are at berth in a foreign port (ie 'flag State inspections'). Any exercise of enforcement measures by a flag State in a foreign port, such as detention according to article 217(2), would nonetheless likely require active assistance from the port authorities, etc in that port State.

A flag State can also simply request another (port) State to detain a certain ship under its flag, and to inspect it on behalf of the flag State.

III. Obligation to Comply with Requirements for Certificates and Surveys: Article 217(3)

Article 217(3) of UNCLOS imposes a duty on flag States to ensure that ships flying their flag have on board all applicable certificates that are mandatory in accordance with international rules for the protection of the marine environment. This includes the certificates required pursuant to MARPOL Annex VI. Many of these are described in chapter 2, including the obligations for ships of 400 GT or above to carry an International Air Pollution Prevention Certificate (IAPP Certificate) and an International Energy Efficiency Certificate (IEE Certificate) (see regulations 5–9 of Annex VI).

The IAPP and IEE Certificates, inter alia, are issued to ensure that all ships, in accordance with regulation 5 of Annex VI, undergo a periodic survey to confirm that all installations, equipment, etc on board comply with the relevant provisions of the Annex.

This is relevant to compliance with article 217(3), as the paragraph also demands that flag States must ensure that ships under their flags are periodically inspected to verify that the certificates are up-to-date and in conformity with the actual condition of the ship.[13] So, to determine whether a flag State has met the conditions in article 217(3), it must prove that ships under its flag carry IAPP and IEE Certificates, and that the required survey intervals have been met pursuant to regulations 5–9 of Annex VI. Such mandatory periodic surveys are often carried out as part of the IMO's specialised Harmonised System of

[13] Art 217(3) does not affect the right of port States to conduct PSC and ensure that all ships are carrying the required documents and certificates. These certificates are, as described in ch 4, among those presented during the initial PSC document inspection; see art 226(1)(a) of UNCLOS.

Survey and Certification (HSSC),[14] which follows a five-year interval scheme of assessment.

It must be underlined that article 217(3) does not apply to BDNs, as these are issued by the fuel supplier, not by the flag State. A missing or non-compliant BDN[15] is therefore not attributable to the flag State's lack of enforcement of Annex VI.

A. Flag State Use of Classification Societies

The meeting of the flag State's obligations to assess and certify compliance on board ships under its flag is often outsourced from the State to private companies, so-called *classification societies*, that are authorised to carry out these mandatory surveys and the subsequent issuing of certificates on behalf of the flag State.[16] The responsibilities and liabilities of a classification society are often established in an agreement between the flag State authorities and the company.[17]

A flag State cannot evade its external responsibilities pursuant to article 217(3) by concluding such inter partes agreements with a private company. This means that if a classification society makes a mistake, for instance not ensuring compliance with MARPOL Annex VI, then this mistake should be directly attributable to the flag State and will be deemed an infringement of article 217(3), albeit that the flag State may have a private law claim against the classification society.

IV. Obligation Ex Officio to Investigate and Initiate Proceedings: Article 217(4)

If a flag State finds, or suspects, that a ship flying its flag has violated IMO regulations for the protection of the environment, that State must immediately investigate this and, where appropriate, initiate proceedings (legal proceedings) in regard to the infringement, irrespective of where the violation occurred.

The scope of article 217(4) must be seen in conjunction with article 217(6), as the latter provision concerns flag State obligations to investigate and instigate

[14] See Resolution A.1104(29) 2015.

[15] A BDN will be deemed non-compliant if it does not meet the standards set out in app 5 to MARPOL Annex VI; see reg 18.5.

[16] For a detailed review of the conditions applying to classification societies, see NM Hosanee, 'A Critical Analysis of flag State duties as laid down under article 94 of the 1982 United Nations Convention on the Law of the Sea', The United Nations-Nippon Foundation Fellowship Programme, 2009–10, 43–52, section 2.4.

[17] The surveys and certification carried out by classification societies on behalf of flag States relating to art 217(3) should not be confused with the safety assessments made by, or for, insurance companies to determine the ship's risk profile prior to insuring it and setting an insurance premium. The latter procedure is often referred to as 'vetting'.

proceedings following official information on a violation from another State. Article 217(4) is therefore relevant where flag States instigate an ex officio investigation based on information provided by States themselves or by non-State actors, for example by employees in the shipping sector using official *whistleblower systems*, or by other maritime sources, such as other ships, pilots, etc. 'Unofficial' (ie unwritten) information from another State will also be information encompassed by article 217(4), as article 217(6) concerns *written requests* by another State.

Consequently, a flag State is, according to article 217(4), required to investigate and, where the information so warrants, institute proceedings, if it has knowledge of, or suspects, that a violation of MARPOL Annex VI has taken place.

Article 217(4) (*in fine*) also includes a very important point, which this book has cited numerous times. It provides that a flag State's obligation to investigate and prosecute is 'without prejudice to articles 218, 220 and 228'. This is – in the view of this author – an important cross-reference, as it is made explicit that flag State jurisdiction pursuant to article 217 must respect the exceptional extraterritorial jurisdictions allowing port States to enforce on the high seas (article 218) and for coastal States to enforce in their own waters and EEZs (article 220). It must also respect how article 228(1) delimits the overlapping jurisdiction between a flag State and a coastal or port State. The provisions mentioned in article 217(4), articles 218, 220 and 228, can therefore be regarded as some of the *codified exceptions to the flag State principle* to which article 92 of UNCLOS refers.

V. Right to Request Assistance from Other States: Article 217(5)

When a flag State is investigating an alleged violation in accordance with Article 217(4) of UNCLOS, article 217(5) allows the flag State to call upon other States for further information to help clarify the circumstances of a case. The other States should endeavour to comply with such *appropriate* requests.

Article 217(5) thereby sets itself apart from the other paragraphs of the article, as it does not place an obligation on the flag State but grants it a legal basis for requesting any help and assistance it may need to fulfil the obligations under article 217.

VI. Obligation to Investigate and Prosecute Alleged Violations: Article 217(6)

As previously specified, under article 217(6), a flag State is obliged to start an investigation of an alleged violation committed by a ship under its flag if it receives a

written request to do so from another State.[18] This provision also explicitly calls for flag States, without delay, to institute proceedings in respect of the alleged violation if the evidence provided or obtained so warrants.[19]

A foreign State could send such a request to a flag State following any findings made during a PSC or – when exclusively focusing on sulphur limits enforcement – following a sulphur measurement from a Continuous Emission Monitoring System (CEMS), or measurements made by a sniffer attached to a drone, bridge, helicopter, etc. For example, if excess sulphur was measured by a sniffer while the ship made an innocent or transit passage through a coastal State's territorial sea.

It should be noted that article 217(6) uses the term 'alleged violation', meaning that other States are not required to present solid evidence at this stage. Mere indications of an infringement, such as sniffer measurements, are sufficient to oblige the flag State to act by investigating and, if warranted, prosecuting.

The obligation in article 217(6) is repeated in regulation 11.4 of MARPOL Annex VI, which requires flag States to respond to any notification from a port State regarding any possible infringements of the Annex, including regulation 14. It also clearly demands that the flag State instigate legal proceedings 'as soon as possible' if a violation has been proved. Regulation 11.4 reads:

> Upon receiving such evidence, the Administration so informed shall investigate the matter, and may request the other Party to furnish further or better evidence of the alleged contravention. If the Administration is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, it shall cause such proceedings to be taken in accordance with its law as soon as possible. The Administration shall promptly inform the Party which has reported the alleged violation, as well as the Organization, of the action taken.

This requirement is also found in article 4(1) of the MARPOL Convention, which provides:

> If the Administration is informed of such a violation and is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, it shall cause such proceedings to be taken as soon as possible, in accordance with its law.

And under article 4(2)(b), any party to the Convention should 'furnish to the Administration of the ship such information and evidence as may be in its possession that a violation has occurred'.

There is a consistency in the responsibility of the flag State to investigate and proceed against violations of the sulphur limits under regulation 14 pursuant to article 217(6) of UNCLOS, article 4(1) and (2)(b) of the MARPOL Convention and regulation 11.4 of MARPOL Annex VI.

[18] The same principle is found in the second indent of art 94(6).

[19] See JA Zerk, *Extraterritorial Jurisdiction: Lessons for the Business and Human Rights Sphere from Six Regulatory Areas*, Report of The Harvard Corporate Social Responsibility Initiative (June 2010) 195.

The requirement for flag States to initiate proceedings when a violation is proved is highly dependent on the subjective assessment made by the flag State authorities regarding the strength of the evidence. In spite of that, the authorities in a (open registry) flag State should not automatically be able to dismiss all information and evidence from other States by officially referring to the lack of sufficient evidence, while unofficially looking to offer leniency to ships sailing under their flag. This conclusion is supported by the underlying principle of article 223, which requires all States, including flag States, to 'take measures to facilitate the hearing of witnesses and the admission of evidence submitted by authorities of another State, or by the competent international organization'.

Thus, a flag State must investigate, under article 217(6), if another State forwards objective and credible information that indicates that a violation of regulation 14 of Annex VI has occurred. Article 217(6) also requires the flag State to institute legal proceedings if another State can forward indisputable proof of a violation of the sulphur limits of Annex VI. This might occur, for example, if a CEMS or a sniffer attached to a drone shows a violation of the global 0.5% limit on the high seas, and a subsequent fuel sample in the next port of call confirms this, as the carriage ban prohibits the presence of non-compliant fuel in all fuel tanks.[20] This should constitute sufficient evidence to require the State to sanction the violation pursuant to article 217(6). The sniffer and CEMS technology might also be developed to offer such precise and accurate results as those achieved by laboratory-tested fuel sampling. This would obligate flag States to institute proceedings on the sole basis of sniffer detection.

On the other hand, should a flag State fail to commence legal proceedings in such circumstances, this would automatically be considered an instance of the State's disregarding its duty to enforce effectively under article 217(6). See chapter 11 on article 228(1) for further details.[21]

VII. Obligation to Inform the IMO and All States of All Enforcement: Article 217(7)

Article 217(7) of UNCLOS obliges the flag State to inform the 'requesting State' and the IMO promptly of the action it has taken after receiving information on an alleged violation pursuant to article 217(6). The flag State must also subsequently make this information available to all States.

[20] See ch 1 for discussion of the carriage ban, sniffer technology and fuel sampling, etc.

[21] A flag State's failure to comply therewith could, to some extent, also be deemed a violation of its duty to other contracting States that are parties to UNCLOS or MARPOL Annex VI, ie violating the *pacta sunt servanda* principle embodied in art 26 of the Vienna Convention on the Law of Treaties 1969 (adopted 22 May 1969, entered into force 27 January 1980) 1155 UNTS 331 (VCLT). The flag State would also breach art 300 of UNCLOS, which, inter alia, provides that parties to UNCLOS 'shall fulfil in good faith the obligations assumed under this Convention'.

The information that must be provided pertains to the action taken and the outcome of the investigation and legal proceedings. This means that the flag State must disclose the size of any fine and any other sanctions imposed (imprisonment, etc).

This information must be forwarded *promptly*, which, in the view of this author, means immediately after a final verdict has been rendered or the deadline for appeals has expired. The obligation to make the information available to all States is not subject to the same demand for timely notification.

Obviously, article 217(7) plays a key role when determining whether a flag State has fulfilled its responsibilities pursuant to article 217 to take action against violations of regulation 14 of Annex VI.

The fact that the flag State is under a legal obligation to disclose information on the outcome of its investigation and legal proceedings, including information on its sanctions, enables other States and the IMO to determine if a flag State's fine was *effective* in accordance with article 217(1). This includes assessing if a fine fulfils the criteria of being effective, proportionate, dissuasive, stripping (confiscating) all economic gains from the infringement and increasing in the event of aggravating circumstances, such as repeated violations.

The obligation to inform laid down in article 217(7) is also found in article 4(3) of the MARPOL Convention, which states:

> Where information or evidence with respect to any violation of the present Convention by a ship is furnished to the Administration of that ship, the Administration shall promptly inform the Party which has furnished the information or evidence, and the Organization, of the action taken.

The information provided in accordance with article 217(7) of UNCLOS allows other States and the IMO to evaluate whether the flag State has used the information and proof provided by the requesting State, in accordance with article 217(6)[22] and the principles in article 4(1) and (2)(b) of the MARPOL Convention and regulation 11.4 of Annex VI, to proceed against a violation of the 0.1% or 0.5% sulphur limit effectively.

The clarity of the wording in article 217(7) leaves no room for interpretation by flag States to avoid providing the mandatory information, and any failure to so amounts to *disregarding* its obligations, with the result set out in article 228(1) (see chapter 11).

Some flag States may oppose providing information pursuant to article 217(7) by referring to national legislation that prevents or restricts the authorities from disclosing information or the outcomes of criminal proceedings. To this end article 27 VCLT dictates that 'A party may not invoke the provisions of its internal law as justification for its failure to perform a treaty.' This means that if a flag State voluntarily has become a party to UNCLOS, it must comply with article 217(7)

[22] And the principle in art 223 of UNCLOS.

and cannot use its national public access legislation as an excuse for not promptly furnishing the requesting State and the IMO with the required information, and subsequently making it accessible to all States.[23]

It should also be noted that the information that the flag State must provide in accordance with article 217(7) need not contain sensitive *personal* information, as the information required merely relates to the sanction (fine) imposed on the shipowner, which often is a *legal person* (a company).

Any information on sanctions (fines and/or imprisonment) imposed on *physical persons*, whether the master, chief engineer, other crew members, the director of the company, etc, need not include any information that might reveal the identity of the sanctioned person but only information on the sanction itself, to determine if the enforcement has been *effective*. The information provided pursuant to article 217(7) will also not be made available to the public or the press, as only States (ie competent authorities) should have access to this information, and employees working at the authorities are normally subject to a duty of confidentiality.

To reiterate the statement made in chapter 4, the information provided by the flag State should essentially answer two questions: What was the violation? And what was the sanction? Information that flag States must enter into the GISIS system, discussed next.

A. Using the GISIS Module for Flag State Reporting

As described previously, the flag State reporting obligation in article 217(7) corresponds to the reporting obligation in regulation 11.4 of MARPOL Annex VI, for a flag State to inform the IMO and other States of the action taken by the flag State when responding to a violation of the Annex committed by a vessel under its flag. This might include, for instance, action taken for violations of the sulphur limits in regulation 14.

The information provided to the IMO could be registered in the GISIS database, as it would then be accessible by all IMO Member States, thus simultaneously fulfilling the obligations to inform the IMO and the reporting State, *and* make the information available to all States.

The GISIS database, which has a designated MARPOL Annex VI module, could be used for collecting and evaluating the mandatory enforcement reports from flag States pursuant to article 217(7) and regulation 11.4 of Annex VI, as this is valuable when examining the applicability of the second exception in article 228(1) (discussed in chapter 11).

[23] Art 302 of UNCLOS establishes that a State, including a flag State, is never required to provide information that discloses information contrary to essential security interests. The information that needs to be provided in accordance with art 217(7) can never be exempt under art 302, though, as information on enforcement can never be deemed information contrary to essential security interests.

VIII. Obligation to Ensure National Legislation Can Enforce Effectively: Article 217(8)

As briefly touched upon during the clarification of the scope of effective enforcement pursuant to article 217(1) (see section I), article 217(8) establishes that the laws and regulations of the flag State must not present a bar to imposing sanctions (fines) that are severe enough to 'discourage violations wherever they occur'.

This provision requires flag States to ensure that their national laws allow for the sanctioning of violations of environmental legislation, including implemented international regulations in accordance with article 211(2) or article 222, with dissuasive penalties comprising *effective* fines.

The principle under article 217(8) is also in alignment with article 4(4) of the MARPOL Convention, which stipulates:

> The penalties specified under the law of a Party pursuant to the present article shall be adequate in severity to discourage violations of the present Convention and shall be equally severe irrespective of where the violations occur.

Pertaining to enforcement of the sulphur regulations in MARPOL Annex VI, article 217(8) of UNCLOS and article 4(4) of the MARPOL Convention thus task flag States with ensuring that their national legislation does not present a bar to exercising *effective enforcement* in accordance with article 217(1) of UNCLOS (and article 18 of the Sulphur Directive).

This also means that flag States are required to guarantee that their national laws can take effective action against violations of the global 0.5% limit wherever an infringement occurs, including on the high seas. This includes imposing fines that remove (confiscate) economic gains and contain a punitive (dissuasive) element. Such fines could potentially be in the range of, and above, $1 million, given the calculations set out in chapter 1 regarding the possible savings from infringing the regulations (eg $750,000 from one non-compliant trip from Asia to Europe). A flag State's laws must allow for such substantial fines.

The national laws that could limit the possibility for effective sanctioning, and thereby violate article 217(8), could be a flag State's national Criminal Code or the relevant environmental or maritime laws, especially if these allow the relevant (environmental or maritime) authorities to proceed against violations directly with administrative fines.

A. Conflict with National Laws on Administrative Fines

Some States issue so-called *administrative fines*, which enable the responsible authority, often an environmental or maritime authority, to prescribe fines without involving the police, prosecutors and the judicial system.

Some national laws, which provide the legal basis for imposing such administrative fines, also set a safeguarding maximum for an administrative fine.

If a flag State's national law provides for such a maximum on fines for infringements of implemented IMO environmental regulations, such as MARPOL Annex VI, and that maximum is too low to remove economic savings and impose a dissuasive punitive element, the national law is explicitly in breach of article 217(8), but also in breach of article 217(1), as the State's enforcement will be ineffective.[24]

Further, as was the case with article 217(7), a flag State that is party to UNCLOS and/or MARPOL cannot, under article 27 VCLT, use its national legislation on administrative fines as an excuse for not adhering to its obligations to comply with article 217(1) and (8) of UNCLOS and article 4(4) of the MARPOL Convention.

IX. Flag State Obligations under Article 223

On a final note, it should be mentioned that article 223 of UNCLOS consists of obligations that all States, including flag States, must fulfil – obligations that are worth mentioning when examining the legal basis for enforcing MARPOL Annex VI.

The requirement laid down in article 223, to facilitate the hearing of witnesses and the admission of evidence, was briefly mentioned when examining article 217(6) (see section VI). Article 223 also requires all States to 'facilitate the attendance at such proceedings of official representatives of the competent international organization, the flag State and any State affected by pollution arising out of any violation'.

The article also stresses that the official representatives attending such proceedings shall have such rights and duties as may be provided under national and international law. These are presumed to be some of the rights that are normally considered diplomatic rights (see chapter 12).

This means that flag States are not only required to investigate and initiate proceedings under article 217(6) and inform the IMO and other States of the outcome of these proceedings under article 217(7); the flag State must also allow representatives from the IMO to attend such proceedings.[25]

[24] If the national law that provides the legal basis for imposing administrative fines also allowed certain cases to be referred to a court so that it might impose fines higher than the legislative limit, the national law would not be in breach of art 217(8).

[25] Art 223 is studied further in ch 12.

X. Conclusion on Flag State Obligations Pursuant under Article 217

It can be concluded that article 217 of UNCLOS – compared to articles 92 and 94 – is the *lex specialis* provision for determining flag State responsibilities in taking action against violations of all environmental legislation, including MARPOL Annex VI.

Article 217 therefore forms the basis for determining whether flag State enforcement of regulation 14 of Annex VI is adequate or inadequate, even though article 222 specifically regulates air pollution. However, article 222 does not set any specific requirements, while article 217 fills that legal void and is applied in conjunction with article 222.

Seven of the eight paragraphs of article 217 set out obligations that must be fulfilled by a flag State to establish that it has lived up to its duty of effective enforcement. (Article 217(5) does not impose an obligation on the flag State but instead allows it to reach out to other States to request their assistance.)

Pertaining to enforcement of the sulphur limits in MARPOL Annex VI – and other emission rules, including future GHG regulations – a flag State must ensure:

- That the enforcement is *effective* pursuant to article 217(1). This means that any sanction (fine) must be effective, proportionate, dissuasive, deprive the shipowner of the economic gains from the infringement, and increase in light of aggravating circumstances such as repeated infringements, that is, as the principles of article 18 of the EU Sulphur Directive are applied.
- That any ship under its flag that is not complying with MARPOL Annex VI is detained when sailing in areas under the flag State's jurisdiction, until the ship complies (see article 217(2)). This includes ensuring that the ship uses compliant fuel and that any EGCS is approved, functioning and certified in the IAPP Certificate.
- That ships flying its flag have all mandatory certificates, such as the IAPP and IEE Certificates, on board and are periodically surveyed in accordance with article 217(3).
- That all suspected violations, brought unofficially to the attention of the flag State or observed by the flag State itself, are investigated, and that all infringements are proceeded against (prosecuted) pursuant to article 217(4).
- That all suspected violations brought to the attention of the flag State by an official written request from another State are investigated and proceeded against in accordance with article 217(6) and regulation 11.4 of MARPOL Annex VI. The flag State can rely on any evidence and proof supplied by the other State, such as CEMS or sniffer measurements, etc. (See also article 223.) The flag State can request assistance from other States when investigating such alleged violations, as laid down by article 217(5).

- That the State that provided the information under article 217(6) and the IMO are immediately informed by the flag State of its enforcement action. This information must afterwards also be made available to other States pursuant to article 217(7) and regulation 11.4 of Annex VI. The IMO could make such received information available to all States in the GISIS database. It is noted that flag States cannot excuse themselves from complying with this obligation by referring to its being incompatible with their national law (see article 27 VCLT).
- That the national law of the flag State does not present a bar to sanctioning violations of regulation 14 of Annex VI by the imposition of dissuasive penalties (fines) (see article 217(8)). Sanctioning by the use of penalties that discourage further offending is also a requirement of the obligation for effective enforcement under article 217(1) of UNCLOS and article 4(4) of the MARPOL Convention.
- That flag States must, in accordance with article 223, allow authorised official representatives from the IMO to attend the proceedings.

These obligations must all be fulfilled if a flag State is to show that it has taken effective enforcement action against violations of regulation 14 of Annex VI, including violations of the 0.5% sulphur limit occurring on the high seas.

If these criteria are *not* all met, it must be presumed that the flag State has 'disregarded its obligation to enforce effectively', as set out in the second exception in article 228(1), which is analysed in chapter 11.

9

Special Jurisdiction for Coastal States: Article 220

A coastal State's jurisdiction historically has extended to areas under its sovereignty covering internal and territorial waters, which is codified in article 2 of UNCLOS.[1] Certain exceptions – some of which are described in chapter 3 – curtail the jurisdiction in the territorial sea pertaining to the rights to *innocent passage* and *transit passage*.

UNCLOS also represented a development of the international law of the sea for coastal States by, in article 3, empowering those States to claim a 12 nautical mile (nm) territorial sea (instead of the previously accepted 3 nm) and a 200 nm Exclusive Economic Zone (EEZ) in accordance with part V of the Convention.

Coastal States do not have an unlimited sovereign claim over the EEZ, which is reflected in the limited jurisdiction that can be exercised in this area, exemplified by the noticeable differences in article 211,[2] between the provisions permitting coastal States to adopt national legislation for the protection of the environment in internal and territorial waters (article 211(3)–(4)) and those covering the adoption of national laws governing the EEZ (article 211(6)).[3]

Article 220 is a *lex specialis* provision for coastal State enforcement against violations of the International Maritime Organization's (IMO's) environmental regulation in the different areas (waters and zones) described in chapter 3. The article grants the coastal State different jurisdictions for proceeding against such violations committed by foreign ships. Under article 220(1), there is almost unlimited jurisdiction over all violations in all areas and zones, provided the ship subsequently calls into a port or at an off-shore terminal in the coastal State.

Special jurisdiction exists over violations taking place during passage of the territorial sea (see article 220(2)).

Article 220(3)–(8) set out the jurisdictional basis for enforcing all environmental legislation in the EEZ, providing for the possibility of contacting,

[1] United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3.

[2] See ch 7 for an analysis of art 211.

[3] Y Tanaka, *The International Law of the Sea*, 2nd edn (Cambridge University Press, 2015) 293.

stopping, investigating and prosecuting ships that have violated such regulations in the EEZ.[4]

The extension of a coastal State's jurisdiction to cover violations of environmental rules in the EEZ outside areas under its sovereignty (as defined in article 2 of UNCLOS) represents *extraterritorial jurisdiction* that has historical roots dating back to before the adoption of UNCLOS in 1982.

Coastal States, their coastlines and the marine life living therein have always been vulnerable to ships discharging or spilling harmful substances, such as oil and chemicals, into the sea, whether such pollution is accidental or the result of collisions at sea. This was – as described in previous chapters – one of the reasons and one of the concerns that led to the enacting of some of the earliest international regulations for the protection of the marine environment, such as the International Convention for the Prevention of Pollution of the Sea by Oil (OILPOL) in 1954[5] and the International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties ('the Intervention Convention') in 1969.[6] Yet when examining the coastal State's enforcement, one must distinguish between IMO regulations on *air pollution* and other environmental IMO regulations.

As concluded in chapter 7, article 222 is in principle the primary *lex specialis* provision for a coastal State's enforcement of rules on air pollution, including MARPOL Annex VI[7] and future greenhouse gas (GHG) legislation. The geographical scope of article 222 is, however, limited to *internal and territorial* waters. This means that article 220(1) and (3)–(8) provide the *lex specialis* jurisdictional basis for enforcing air pollution regulations in the *EEZ*, including the 0.1% or 0.5% sulphur limits in Annex VI.

As was the case with article 222 in relation to article 217, article 222 does not provide any clear insight as to how a coastal State should enforce these rules on air pollution in its internal and territorial waters. The conclusion as regards 'article 222 v article 220' must therefore be the same as that in 'article 222 v article 217', so that the rather toothless legal content of article 222 must be supplemented by the more specific provisions of article 220(1)–(2), applicable to the enforcement of all international environmental regulations, including MARPOL Annex VI, in internal and territorial waters.

[4] NM Hosanee, 'A critical analysis of flag State duties as laid down under article 94 of the 1982 United Nations Convention on the Law of the Sea', The United Nations-Nippon Foundation Fellowship Programme, 2009–10, 69.

[5] International Convention for the Prevention of Pollution of the Sea by Oil (OILPOL) (adopted 12 May 1954, entered into force 26 July 1958) UNTS 4714.

[6] The Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (adopted 29 November 1969 and entered into force 6 May 1975). 970 UNTS 211 ('the Intervention Convention').

[7] International Convention for the Prevention of Pollution from Ships (adopted on 11 February 1973, as modified by the Protocol of 17 February 1978, entered into force 2 October 1983) 1340 UNTS 61 (MARPOL), Annex VI, IMO Publication: IMO-520E.

Such enforcement in internal and territorial waters can be very important to some coastal States, as air pollution is something that can have an immense adverse impact on the population of the State, especially those living in cities near larger ports and shipping lanes. It may be recalled that the environmental reports referenced in chapter 1 showed that a clear majority of the 137,000 early deaths and 7.6 million asthma cases among children each year, attributable to sulphur pollution from ships, occur in such areas.[8]

I. Jurisdiction under Article 220

A. Full Jurisdiction Over Ships Voluntarily Calling into a Port or at an Off-shore Terminal: Article 220(1)

Article 220(1) of UNCLOS provides a coastal State with the legal basis for enforcing the IMO's rules and regulations for the protection of the marine environment in all areas and zones under its full or partial jurisdiction, that is, in internal waters, the territorial sea and the EEZ.

For the coastal State to exercise jurisdiction under this provision over a foreign ship, that ship must, after the violation, voluntarily call into a port or at an off-shore terminal in the State. The safeguards in section 7 of part XII of UNCLOS must also be observed by the coastal State (see chapter 12).

This means that a coastal State can proceed against (including prosecute) infringements of MARPOL Annex VI (and future GHG legislation) in its internal and territorial waters and in the EEZ pursuant to article 220(1) and in accordance with article 222,[9] provided the foreign ship afterwards calls into a port or at an off-shore terminal in the State.

There has been a general misconception that the right for coastal States to enforce environmental rules in the EEZ is solely found in article 220(3)–(8), as these paragraphs explicitly refer to the EEZ and lay down detailed demands for coastal State enforcement in this zone. Nevertheless, it must be observed that these regulations pertain to the right of coastal States to question, stop, inspect, detain and prosecute a foreign ship that sails straight through the EEZ and thereby exercises its right to the freedom of transit through the zone pursuant to article 58(1). But if a ship violates an environmental regulation, such as regulation 14 of MARPOL Annex VI, in the EEZ and then voluntary sails into a port

[8] M Sofiev et al, 'Cleaner fuels for ships provide public health benefits with climate tradeoffs' (2018) 9 (article no 406) *Nature Communication* 6, available at https://www.nature.com/articles/s41467-017-02774-9#ref-link-section-d1456e583.

[9] The correct legal reference when referring to coastal State enforcement of air pollution regulations, such as Annex VI, in internal or territorial waters should also include a reference to art 222, eg 'pursuant to art 220(1) in accordance with art 222'.

in the coastal State, then that State has full jurisdiction over the infringement pursuant to article 220(1). This is jurisdiction that overlaps with the flag State's jurisdiction under article 217(1), a matter that can be resolved in accordance with article 228(1) (see chapter 11).

B. Enforcing Violations Committed by Ships Making an Innocent Passage: Article 220(2)

As described in chapter 3, article 21(1)(f) of UNCLOS permits coastal States to adopt national laws and implement international legislation for the protection of the marine environment, by which foreign ships making an innocent passage through the territorial sea must abide (see article 21(4)).

If a ship violates the rules and regulations found in part II, section 3 of UNCLOS (including article 21) during its innocent passage through territorial waters, the coastal State may, in accordance with article 220(2), inspect the ship and, where the evidence so warrants, detain the vessel and institute legal proceedings. Under article 220(2) the coastal State must have *clear grounds* for believing that such an infringement has occurred before carrying out these enforcement measures. The procedural safeguards of section 7 of part XII must also be adhered to (see chapter 12).

When discussing enforcement of air pollution regulations in MARPOL Annex VI, such as SOx (regulation 14), or NOx (regulation 13) or future GHG/CO_2 measures, violations can potentially be detected – or at least suspected – in numerous ways without the ship's having to call into a port and undergo Port State Control (PSC). Some of the different emission surveillance systems referred to in chapter 1 include sniffer systems (attached to drones, bridges, helicopters, other ships, etc) and Continuous Emission Monitoring Systems (CEMSs), which are installed in the funnel of a ship. These systems can all indicate, and perhaps even unequivocally prove, a violation of such emission regulations.

If such a system shows that a ship is non-compliant, for instance with regulation 14, during its innocent passage through the territorial sea, and thereby is in violation of UNCLOS article 21(1)(1) and (4), it would constitute *clear grounds* for the coastal State to believe that such an infringement has taken place, enabling the State to stop, investigate, detain and prosecute the ship(owner) in accordance with article 220(2) and pursuant to article 222.[10]

It would also constitute *clear grounds* if a coastal State were to receive information from the IMO (through the GISIS system) or another State (perhaps the flag State) of a foreign merchant ship's suspected non-compliance while passing

[10] Indicating and/or proving violations of certain non-visible discharge limits, such as infringements of wash water discharge limits for open loop scrubbers, could be difficult. Coastal States would therefore often not have *clear grounds* for believing that a violation of the wash water limits has taken place, unless a Continuous Monitoring System (CMS) shows such a violation of these limits.

through the territorial sea. The coastal State could take measures, including investigating and imposing penalties, against such a violation, as article 27(5) of UNCLOS, as discussed in chapter 3, refers to the applicability of part XII of UNCLOS, which includes article 220(2), thereby allowing coastal State to disregard the usual restrictions on hindering a foreign ship during its *innocent passage*.

C. Requiring Information from Ships in the EEZ: Article 220(3)

Article 220(3) stipulates that if a coastal State has *clear grounds* for believing that a foreign vessel has violated *international* rules for the protection of the environment whilst sailing in the EEZ, that State 'may require the vessel to give information regarding its identity and port of registry, its last and its next port of call and other relevant information required to establish whether a violation has occurred'.

Before analysing the content of this paragraph, it should first be noted that although it directly refers to *international* rules, article 220(8) stipulates that article 220(3) (and article 220(4)–(7)) also applies to enforcement of a coastal State's *national* environmental laws, for example regarding a Particularly Sensitive Sea Area (PSSA), adopted in accordance with article 211(6), as described in chapter 7.

Second, article 220(3) lays down the same requirement as in article 220(2), for the coastal State to have *clear grounds* before invoking the provision. The standard used for determining clear grounds under article 220(2), in situations in territorial waters, could therefore, in principle, also be used in article 220(3) situations in the EEZ, for instance if a sniffer or CEMS points towards a violation of the sulphur limits under MARPOL Annex VI, or if a CMS indicates a discharge violation from a ship using an open loop scrubber system. Information from the IMO or another State on non-compliance would also constitute such clear grounds.

The coastal State can require the necessary information from a foreign ship pursuant to article 220(3) if the ship is still sailing in the EEZ, or if it has continued into territorial waters where it is making an innocent passage.[11] The information the ship must provide is to disclose its identity (name and IMO number), port of registry (flag State) and its last and its next port of call. Also, it must furnish 'other relevant information required to establish whether a violation has occurred', which, when determining whether a violation of regulation 14 of Annex VI has taken place, could include information on what fuel is being used, where and when it was purchased, and by which fuel provider.

[11] If the ship is not making an innocent passage, eg is at anchor in territorial waters at an off-shore terminal, or if it continues into a port in internal waters, the jurisdictional basis for the coastal State to investigate and proceed against the infringement will shift to the wider jurisdiction under art 220(1), as this provision will then become applicable.

Article 220(3) clearly shows how the coastal State's jurisdiction is limited in the EEZ compared to its jurisdiction in internal and territorial waters, as it merely allows the questioning of ships, while article 220(1) and (2), inter alia, allow for investigation and the commencement of proceedings.

D. Obligation for Flag States to Implement Rules on Providing Information: Article 220(4)

Article 220(4) sets itself apart from the other paragraphs of article 220 as it does not impose obligations on, or bestow rights on, the coastal State. Instead, it requires a flag State to implement rules in its legislation ensuring that ships under its flag provide the information a coastal State may request in accordance with article 220(3). Pursuant to article 220(8), this includes information needed to determine if a ship has violated national legislation for the EEZ adopted by the coastal State in accordance with article 211(6).

Article 220(4) is not studied in further detail, but it should be noted that flag States are also required to enforce such legislation pursuant to article 217, which means that they must assist the coastal State in any way to ensure that a ship under their flag provides the information requested.

E. Proceeding against Violations in the EEZ Causing Significant Pollution: Article 220(5)

Article 220(5) also refers to the aforementioned 'article 220(3) situations' where a coastal State has *clear grounds* for believing that a violation has occurred in the EEZ and the ship is present in the EEZ or in the territorial sea.

Compared to article 220(3), article 220(5) expands the jurisdiction for a coastal State to act following such violations, as it offers a legal basis for such a State to stop and inspect a ship sailing in the EEZ or territorial sea. This wider jurisdictional basis for enforcement is, however, curtailed in comparison with article 220(3), by the setting of further requirements for its applicability.

First, the stopping and investigation of the foreign ship must be a result of the ship's not providing information in accordance with article 220(3), or the information provided being insufficient. The coastal State may also undertake an inspection of the ship if it has reason to believe that the information is inconsistent with the factual and actual circumstances of the case, meaning that the coastal State has reason to believe the information provided by the ship is false or erroneous.

Second, the scope of article 220(5) is narrower than that of article 220(3) as it refers to 'a substantial discharge [in the EEZ] causing or threatening significant pollution of the marine environment'. Chapter 10 of this book, relating to port

State jurisdiction pursuant to article 218 of UNCLOS, concludes that the term 'discharge' includes *emissions*, such as sulphur emissions. The reasoning behind this conclusion will not be elaborated upon in this chapter, but it should be noted that while article 218(1) refers to *any* discharge – that is, the broadest possible application of the term 'discharge' – article 220(5) narrows the scope of the term, as seen from the wording of the paragraph quoted above.

Although air pollution is extremely damaging to the environment in general, including to human health, this source of pollution, especially when considering the release of SOx, NOx and CO_2 (GHG), does not create specific, tangible damage to a coastal State.[12] Reputedly, it instead contributes to the overall accumulation of air pollution, thereby reducing the air quality, with adverse effects on human health and the environment. Emissions of air pollution could, from an overall global perspective, be seen as being more damaging than other pollution, for instance more damaging than discharge of oil into the sea, which the term 'discharge' of course encompasses. Nonetheless, as article 220(5) refers to the discharge's being substantial and possibly causing significant pollution, etc, there must be a direct causal link between a specific ship's infringement of the discharge regulation and the specific pollution of the marine environment that results. Distinguishing between the different forms of discharge is necessary as not all discharge violations are covered by article 220(5), since they must result in tangible pollution damage.

Specific violations by a foreign ship of MARPOL Annex VI, should not – although also being *discharge violations* (see chapter 10) – be regarded as violations that potentially can cause specific, perceptible pollution damage to the marine environment of the coastal State. Every infringement contributes instead to the accumulating air pollution, as a long-range transboundary pollutant can travel great distances before it undergoes a chemical reaction or is inhaled by humans.

F. Enforcement against Violations in the EEZ Causing Major Damage: Article 220(6)

Article 220(6) expands the jurisdictional basis of article 220(5), so that coastal States, rather than merely taking measures against violations by stopping and

[12] See Professor Henrik Ringbom, who comes to the same conclusion regarding art 220(5) and (6) of UNCLOS on sulphur pollution: H Ringbom, 'Enforcement of the Sulphur in Fuel Requirements: Same, Same But Different', available at https://webcache.googleusercontent.com/search?q=cache:EBk8-0aReA0J:https://www.duo.uio.no/bitstream/handle/10852/61600/SO-Artikel-Ringbom.pdf%3Fsequence%3D4%26isAllowed%3Dy+&cd=1&hl=da&ct=clnk&gl=no, 10–11. See also Yoshifumi Tanaka, who asserts the same regarding Energy Efficiency Measures and art 220(5) and (6) of UNCLOS: Y Tanaka, 'Regulation of Greenhouse Gas Emissions from International Shipping and Jurisdiction of States' (2016) 25 *Review of European, Comparative and International Environmental Law* 339.

investigating a foreign ship, may – if the evidence warrants it – detain the vessel and institute proceedings.

The scope of article 220(6) is to a certain extent the same as that of article 220(5), as it also refers to violations encompassed by article 220(3) and to the fact that a discharge has taken place in the EEZ and that the ship is subsequently sailing in the EEZ or in the territorial sea.[13]

The wider coastal State jurisdiction for enforcement under article 220(6) is limited, though, by stricter requirements for invoking the paragraph than those applying to article 220(5).[14] While article 220(5) (and article 220(3)) refer to the coastal State's having 'clear grounds' for presuming that a violation has occurred, article 220(6) sets the evidence bar somewhat higher, requiring that the State has 'clear objective evidence' of a foreign ship's (discharge) violation in the EEZ.

This criterion requires the coastal State to prove that a certain discharge is attributable to a specific ship. For example, an inspection carried out in accordance with article 220(5) may prove that such a violation has taken place, or aerial or satellite surveillance may clearly prove a ship's discharge of oil.

Another criterion is introduced in article 220(6) that narrows the applicability of the paragraph, in comparison with article 220(5), as article 220(6) refers to the discharge's 'causing major damage or threat of major damage to the coastline or related interests of the coastal State', it being recalled that article 220(5) simply refers to 'significant pollution of the marine environment'.

This must also be seen as setting a more demanding standard for what sort of damage may result in the detention and prosecution of a foreign ship using its freedom to transit the EEZ pursuant to article 58. Consequently, if an infringement of article 220(6) has been established, it must ipso facto be assumed that a breach of article 220(5) has also taken place.

This conclusion is supported by the ECJ in the *Bosphorus Queen*:

> It is unnecessary, in principle, to take account of the concept of 'significant pollution' referred to in Article 220(5) of the United Nations Convention on the Law of the Sea when applying Article 220(6) …[15]

When it comes to defining exactly what the term 'related interests' means in article 220(6), UNCLOS is of no assistance, even though that term is also used in articles 142(3), 211(1) and (7), and 221(1). However, both the Intervention Convention (in article II(4)) and the Nairobi Convention (in article 1(6))[16] define

[13] It should be recalled that the regulation referred to in art 220(3) can encompass nationally adopted (discharge) laws. See also art 211(6) and art 220(8). Also recalling that the ship, if it continues into internal waters, is subject to the coastal State's full jurisdiction to enforce pursuant to art 220(1).

[14] As noted by the European Court of Justice (ECJ) in Case C-15/17 *Bosphorus Queen Shipping Ltd Corp v Rajavartiolaitos*, ECLI:EU:C:2018:557, para 91.

[15] ibid para 119, point 4 of the conclusions See the Court's ruling on the fourth question in the *Bosphorus Queen* case, which is supported by the conclusion reached by Advocate General Wahl in his Advisory Opinion in the case at para 98.

[16] The Nairobi International Convention on the Removal of Wrecks (adopted 18 May 2007, entered into force 14 April 2015) ('the Nairobi Convention').

it identically,[17] suggesting that the definition could be used for the purposes of interpretation and clarification to determine the scope and applicability of article 220(6). Those Conventions define a coastal State's 'related interests' as including:

(a) maritime coastal, port and estuarine activities, including fisheries activities, constituting an essential means of livelihood of the persons concerned;
(b) tourist attractions and other economic interests of the area concerned;
(c) the health of the coastal population and the wellbeing of the area concerned, including conservation of marine living resources and of wildlife.

Major damage to the coastline or related interests – following these definitions – could therefore be caused by a significant oil spill (or the threat thereof), which also was determined in the *Bosphorus Queen*, where the ECJ scrutinised the term 'related interests' in article 220(6). The Court concluded – also applying the definition in article II(4) of the Intervention Convention[18] and interpreting the term in accordance with article 31 of the Vienna Convention on the Law of Treaties[19] – that Finnish interests had been endangered by a foreign ship's violation of MARPOL Annex I while passing through the Finnish EEZ.[20]

The ECJ also found that it could have an impact on the overall assessment that a discharge violation occurred in a sensitive area, such as a PSSA, but that it would not automatically constitute a violation covered by article 220(6).[21] That being said, national regulations adopted pursuant to article 211(6) – which also forms the basis for designating PSSAs, as described in chapter 3 – are also subject to the coastal State's EEZ jurisdiction under article 220(6), as stipulated by article 220(8).

As the interests of the coastal State encompass the 'health of the coastal population' ((c) above), an argument could be made that article 220(6) should cover violations of regulation 14 of MARPOL Annex VI, as sulphur emissions from ships statistically cause more damage (given the adverse effects on human health) when released near densely populated coastal areas located close to ports and shipping lanes.[22] Albeit a commendable approach, the causality between the violation of

[17] The definitions in subparas (a)–(c) of their respective provisions are identical in both Conventions, but the Intervention Convention does not, unlike the Nairobi Convention, include subpara (d) referring to the term's including 'offshore and underwater infrastructure'.

[18] *Bosphorus Queen*, n 14, para 87.

[19] ibid para 67; Vienna Convention on the Law of Treaties 1969 (adopted 22 May 1969, entered into force 27 January 1980) 1155 UNTS 331 (VCLT).

[20] The ECJ notes in *Bosphorus Queen*, n 14, para 107, that even though the Baltic Sea is deemed a Special Area in accordance with MARPOL Annex I, a violation of Annex I does not automatically result in major damage covered by art 220(6) but it could influence that assessment. The same conclusion is reached in Advocate General Wahl's Advisory Opinion in the case (para 107 of the Advisory Opinion).

[21] *Bosphorus Queen*, n 14, para 108.

[22] See the data and studies referred to at the beginning of this chapter and in ch 1.

one specific ship and the 'damage' it inflicts on the coastal State's inhabitants is, in the view of this author, too weak to support such use of article 220(6).[23] This conclusion – that there is a need for a causal link between a specific violation and concrete visible damage – is supported by the statement made by Advocate General Wahl in his Advisory Opinion in the *Bosphorus Queen*.[24]

The applicability of article 220(6) can also be discussed concerning violations of discharge limits for wash water from open loop scrubber systems, including national limits adopted in accordance with article 211(6), which, under article 220(8), applies to article 220(6). Although such a violation would lead to the discharge of water with a heightened pH-value and different pollutants in lesser amounts, it cannot be presumed that this would constitute *major damage* (or the threat thereof) to the coastal State's coastline or interests. As previously noted, though, if the ship calls into a port or at an off-shore terminal in a coastal State after its violation in the EEZ (or territorial sea), the wider jurisdiction pursuant to article 220(1) applies, enabling the coastal State to take action against violations of sulphur limits as well as wash water discharge limits.

Thought should also be given to situations where a foreign ship has violated air pollution regulations, such as MARPOL Annex VI, during its transit of the EEZ – and the coastal State cannot stop this passage under article 220(5)–(6) – but the same ship at a later time, perhaps weeks or months afterwards, calls into a port in the coastal State. Could the coastal State take measures against the earlier EEZ violation at this point because of the article 220(1) jurisdiction it has? This author believes this is possible, provided the coastal State has solid evidence of the violation and any national or international limitation periods, for instance under article 228(2) (see chapter 12), have not been breached. One might call this *delayed enforcement*. Article 220(6) does not present a bar to such delayed enforcement against ships that later voluntarily call into a port in the coastal State. The violation is covered by article 220(1).

Following this train of thought, a ship's violation of MARPOL Annex VI during its innocent passage or transit passage in an international strait in the territorial sea could also be subject to enforcement measures at a later time, if the ship were voluntarily to call into a port in the coastal State, pursuant to article 220(1). This enforcement would not have any ties to the provisions of parts II and III of UNCLOS governing these forms of passage, described in chapter 3, including article 220(2) and article 233 of part XII, as these legal regimes merely focus on the coastal State's not hindering innocent or transit passage by stopping and inspecting a ship. Delayed enforcement in response to a violation of the sulphur

[23] An exception to this conclusion might be if a ship, in violation of IMO regulations, were to release an extremely harmful (toxic) pollutant gas into the atmosphere, which could travel from the EEZ (minimum 12 nm from shore, ie outside territorial waters) in over land and directly harm (poison) humans. This would create the link needed to invoke art 220(5)–(6).

[24] Advocate General Wahl, Advisory Opinion in the *Bosphorus Queen*, n 14, paras 106–108, delivered on 28 February 2018.

limits of MARPOL Annex VI, or other regulations on air pollution (GHGs, etc), would merely reflect that the ship had violated article 220(1). As mentioned, such enforcement is subject to the ship's voluntarily calling into a port or at an off-shore terminal in the coastal State, to the existence of clear evidence of the previous violation and to the fact that any limitation period, such as the three-year limit pursuant to article 228(2), has not been exceeded.

G. Detention and the Posting of Financial Security: Article 220(7)

Article 220(7) specifies that any detention of a foreign ship by a coastal State in accordance with article 220(6) must be ended if 'bonding or other appropriate financial security' has been assured in accordance with international procedures. This approach coincides with the procedural guarantees set out in article 226(1)(b), described in chapter 4.

The opposite conclusion must be that the coastal State is permitted to detain the vessel until such appropriate financial security is posted by the shipowner.

It must be presumed that if the detention of the ship in the EEZ poses a risk of further pollution of the marine environment or a risk to navigational safety in the area, the coastal State can *force* the ship to sail to a port or off-shore terminal in the coastal State. Also, if a shipowner cannot provide the required economic security within a reasonable time (days or weeks), the wellbeing of the crew or ship could dictate that the vessel should be forced to call into a port in the coastal State.

If a ship calls *voluntarily* into a port in the coastal State after the infringement in the EEZ (or in the territorial sea), the State can institute proceedings in accordance with article 220(1), which includes detaining the vessel pursuant to article 226(1)(b) as article 226(1)(a) directly refers to article 220.

The legality of such detention, including the size of the required financial security following article 226(1)(b), can be assessed by the competent judicial organ under part XV on dispute settlement (see article 292).

H. Enforcing National Regulations under Article 211(6): Article 220(8)

As already mentioned several times in this chapter – and in chapter 7 – article 220(8) refers to the specific national rules for protection of the marine environment in the EEZ adopted by the coastal State in accordance with article 211(6). Article 220(8) stipulates that article 220(3)–(7) apply to violations of such nationally adopted EEZ regulations.

The reason why there is no reference to article 220(1)–(2) in article 220(8) is of course due to the geographical scope of those provisions, as article 220(2)

deals with infractions occurring in the territorial sea and article 220(1) deals with all violations within waters under a coastal State's jurisdiction, provided the ship afterwards calls upon a port or at an off-shore terminal in the coastal State.

It should be noted that even though article 220(8) does not refer to article 220(1), the wording of the latter paragraph indicates that violations of nationally adopted laws may be the subject of enforcement measures taken by the coastal State, including in the EEZ. The precise wording of article 220(1) is that the State may

> institute proceedings in respect of any violation of its laws and regulations adopted in accordance with this Convention or applicable international rules and standards for the prevention, reduction and control of pollution from vessels when the violation has occurred within the territorial sea or the exclusive economic zone of that State.

The reference to 'its laws and regulations adopted in accordance with this Convention' must, inter alia, be a reference to national laws adopted in accordance with article 211(6).

II. Article 220 Used in Conjunction with Article 111

Under article 111(1) of UNCLOS, coastal States with waters adjacent to the high seas have the *right of hot pursuit* following a foreign ship's suspected violation of coastal State rules committed in internal or territorial waters or in the contiguous zone, or, under article 111(2), in the EEZ or on the continental shelf. This was briefly discussed in chapter 3.[25] This right allows the coastal State to pursue a foreign ship *in continenti* (uninterrupted) from its own waters and out onto the high seas, where it can arrest the ship and escort it back to the State (see article 111(7)).

Article 111 does not specify what kind of regulations are enforceable in accordance with the article, so the applicable rules must be those that are enforceable within the different areas. This means that rules protecting the marine environment, including the sulphur regulations of MARPOL Annex VI, are encompassed by article 111, pertaining to (suspected) violations committed in internal and territorial waters and in the EEZ.

Article 111(1) provides that if a foreign ship is within the contiguous zone, as defined in article 33, pursuit may only be undertaken if it is for a violation of a right protected in that 24 nm zone, which does not include environmental legislation. Nonetheless, it should be remembered that the 200 nm EEZ, in accordance

[25] The provisions of UNCLOS regulating the contiguous zone (art 33) and the continental shelf (pt VI) are also discussed in ch 3.

with article 57, stretches from the baseline, allowing the coastal State to enforce violations of environmental law in the contiguous zone area from the 12th to the 24th nm from the baseline in accordance with article 111(2).

The same problem arises regarding coastal State jurisdiction on the continental shelf, given the reference in article 111(2) to the right of hot pursuit's applying *mutatis mutandis* there. The same reasoning and conclusion as stated above can be applied because of the overlapping geographical 200 nm area of the EEZ and the continental shelf.[26]

Consequently, if a ship violates the sulphur limits in regulation 14 of Annex VI in *internal or territorial waters*, a coastal State may, in principle, follow the ship *in continenti* out onto the high seas and exercise jurisdiction over it in accordance with article 220(1)–(2) of UNCLOS.

If a ship violates regulation 14 in the *EEZ*, the restrictions under article 220(5)–(6) apply regarding stopping and investigating the vessel and prosecuting any such violation. This presumably bars the coastal State from conducting hot pursuit for such a violation, recalling the previous discussion and conclusion in this chapter (sections I.D and I.E) that sulphur emissions (discharges) cannot meet the requirements of causing (or threatening to cause) significant – and tangible – pollution, nor major damage.

Before exercising such hot pursuit (for suspected Annex VI violations in internal and territorial waters) at the discretion of the coastal State, a couple of essential principles should be kept in mind. First, the requirements of article 111 for conducting hot pursuit – set out in chapter 3 – must be observed. For example, ensuring that the pursuit ends as soon as the ship enters the territorial sea of its own State or of another State (article 111(3)),[27] that it has been established that the believed violation took place within the areas specified in article 111(1)–(2) and that the foreign ship has ignored any signal or radio transmission to stop (article 111(4)), and that the pursuit is carried out by a ship or aircraft clearly marked and identifiable as being in government service (article 1111(5)).

Second, one should be mindful of the fact that article 111 does not grant a coastal State an independent extraterritorial right to prescribe and enforce legislation outside its territory, as it concerns infringements that took place within areas under the coastal State's jurisdiction.

Yet even though these restrictions and limitations apply, article 111 can prove to be a powerful practical and legal tool for a coastal State when it comes

[26] It is not relevant in this context to discuss coastal State jurisdiction on a prolonged 350 nm continental shelf, as the added 150 nm do not result in any wider jurisdiction for the coastal State to take action against general violations of environmental legislation.

[27] LM Paul, 'Using the Protective Principle to Unilaterally Enforce Transitional Marine Pollution Standards', Paper presented at the Second International Conference on Marine Debris, 2–7 April 1989, Honolulu, Hawaii, 1051, available at http://webcache.googleusercontent.com/search?q=cache:iNC0b6JIg1cJ:swfsc.noaa.gov/publications/TM/SWFSC/NOAA-TM-NMFS-SWFSC-154_P1045.PDF+&cd=1&hl=da&ct=clnk&gl=no.

to taking action against infringements of air pollution regulations, such as MARPOL Annex VI or future GHG rules, that take place in its internal or territorial waters, and over which it has jurisdiction pursuant to article 220 and to article 222.

As noted in chapter 3, the description of pursuit by aircraft under article 111(6), including the reference to the application of the *mutatis mutandis* principle, has led this author to conclude that hot pursuit can be carried out by a *drone* transmitting visual information direct to coastal State authorities. Such a drone could also have a *sniffer* attached, which could measure the levels of SOx, NOx, CO_2, etc released from a ship. A drone, with a sniffer attached, could therefore detect a violation by a foreign ship in internal or territorial waters of the coastal State and inform the authorities of it, which could then hail (contact) the ship. If the ship did not answer and kept on sailing, the drone could pursue the ship out of internal and territorial waters and out onto the high seas, keeping and relaying visual contact at all times, until a vessel or aircraft from the coastal State was able to intercept, stop and arrest the ship. Under article 111(3), this is possible until the ship enters the territorial sea of another coastal State or of the flag State. A coastal State will nevertheless have to exercise this means of enforcement in a responsible and dutiful manner, as article 111(8) stipulates that if a ship is stopped or arrested in circumstances that do not justify the exercise of hot pursuit then it (the shipowner) must be compensated by the coastal State for any economic loss or damage sustained.

III. Article 220 Read in Conjunction with Articles 223, 230 and 231

Although the procedural safeguards of section 7 of part XII of UNCLOS are discussed in chapter 12 of this book, three of the provisions within that section should briefly be examined here in conjunction with the application of article 220.

A. Coastal State Obligations According to Article 223

It was noted in chapter 8 that flag States, in accordance with article 223, are required to allow representatives from the IMO and an injured coastal State to attended legal proceedings for violations of rules for the protection of the environment, and to let these representatives enjoy international (diplomatic) rights.

The same obligation falls upon coastal States when initiating legal proceedings pursuant to article 220, widening the circle of representatives to include those from the flag State (see article 223).

B. Coastal State Obligations under Article 230

Article 230(1)–(2) set a procedural bar on coastal States' imposition of penalties other than fines for *all* violations occurring in the EEZ and for *non-wilful* or *minor* violations occurring in the territorial sea. This means that only infringements that take place in internal waters, or deliberate infringements resulting in serious pollution taking place in the territorial sea, can be subject to other penalties such as imprisonment. And then only provided the basic *recognised rights of the accused* are observed by the coastal State in accordance with article 230(3).

All violations of environmental regulation, including MARPOL Annex VI and other rules on air pollution, occurring in the EEZ, which are acted on by a coastal State in accordance with article 220(1) (where the ship calls into a port), can only be met with monetary penalties (fines) pursuant to article 230(1).[28]

Violations of MARPOL Annex VI occurring in the *territorial sea*, which are enforced in accordance with article 220(1)–(2) pursuant to article 222, can also only be met with fines according to article 230(2), as it is very unlikely that such infringements of air pollution regulations – given the argument in sections I.E and I.F regarding the applicability (or lack of applicability) of article 220(5)–(6) – will result in tangible *serious* pollution.

Article 230 does not, in principle, present a bar to coastal States' penalising violations of MARPOL Annex VI in *internal waters* with non-monetary penalties, including imprisonment. It must be considered very unlikely, however, that this possibility would be applied, particularly due to the principle of proportionality, as it often would be the shipowner that would be considered the main culprit in such violations, as the owner is the entity that stands to gain from the violations, not the master or crew, who are those who will be in the custody of the coastal State. Proven complicity by the master and/or other crew members could, of course, influence this judgement, especially if it relates to falsifications of documents or giving false statements to Port State Control Officers, as discussed in chapter 4.

C. Coastal State Obligations under Article 231

Article 231 of UNCLOS requires all States to promptly notify the flag State and other States concerned, for example coastal States affected by a polluting incident, of any enforcement measures taken in accordance with the provisions of section 6 of part XII of the Convention. This includes enforcement measures taken by coastal States in accordance with article 220 (and article 222).

[28] The same applies to penalties imposed for violations covered by art 220(5)–(6), eg for violations of MARPOL Annex I or II.

The reference to 'any enforcement measures', as a general rule, includes any questioning, stopping, investigation, detection and legal proceedings carried out by a coastal State pursuant to article 220(1)–(8). An exception to this is found in the second sentence of article 231, which explicitly reduces the coastal State's reporting duties, if a violation was committed in the *territorial sea*, to notification of any measures taken in legal proceedings.

The lack of any reference in article 231 to infringements occurring in *internal waters* may be interpreted in one of two ways. Either the coastal State is under no obligation to inform the flag State of any measures taken, or the requirement in article 231 (second sentence) to inform about measures taken in legal proceedings also implicitly applies to measures taken against violations occurring in internal waters. As a coastal State has full sovereignty and jurisdiction in internal waters pursuant to article 2(1) and no exceptions apply (opposite ended conclusion of article 2(3)), it must be assumed that it is the first-mentioned possibility that prevail. Thus, coastal States are *not* legally bound to inform a flag State of any enforcement measure taken in accordance with article 220(1) for violations that occur within in its internal waters.

A coastal State should nonetheless always endeavour to voluntarily inform flag States of any legal proceedings commenced with regard to violations in its internal waters. Especially as such violations can be met with non-monetary penalties, for example imprisonment, following article 230. This practice is recommended not only from a *cooperative viewpoint*, for maintaining good relations with other (flag) States, but also from a *procedural point of view*, in case a flag State decides to bring proceedings before an international court in accordance with article 287 of part XV of UNCLOS (see chapter 12) to question the legality of the enforcement by the coastal State. Any information provided to the flag State in a timely manner would help the coastal State in such proceedings.

Article 231 specifies that the information to the flag State should be provided to *consular officers* and, if possible, to the *maritime authority* of the flag State.

IV. Other Provisions of Part XII Bestowing Rights on Coastal States

Several provisions of UNCLOS besides articles 211, 212 and 222 – as mentioned in chapter 7 – provide a special legal basis for coastal States to adopt and implement laws and regulations for the protection of the marine environment. These include article 21(1)(f), with regard to innocent passage through the territorial sea, article 42(1)(b), pertaining to transit passage through an international strait, and article 210 on dumping.

Laws adopted under article 21(1)(f) are, as already concluded in section I.B, enforced in accordance with article 220(2).

Enforcement measures for any breach of article 42(1)(b) are taken in accordance with article 233 (see section IV.C); and enforcement measures for any infringement of article 210 are undertaken by the coastal State in accordance with article 216, which is briefly examined in section IV.A following.

Article 221 is also examined to determine whether its extraterritorial jurisdiction provides coastal States with the possibility of enforcing violations of MARPOL Annex VI on the high seas (see section IV.B).

A. Enforcing Dumping Violations under Article 210: Article 216

As mentioned in chapter 7, article 210 of UNCLOS provides that all States, which includes coastal States, must adopt laws preventing pollution of the marine environment by *dumping*. These laws must, at a minimum, be as effective as international regulations on dumping (ie the London Convention[29]), in accordance with article 210(6). These laws and regulations can be enforced by the coastal State in accordance with article 216(1)(a) within its territorial sea or EEZ, or on its continental shelf.

As the reference to the *continental shelf* is without any further specified restrictions, this should allow coastal States that – pursuant to article 76(4)–(8) of UNCLOS (see chapter 3) – have extended their continental shelf to 350 nm from the baseline, to exercise jurisdiction over dumping violations in that area in accordance with article 216(1)(a). Normally, the continental shelfs rights in part VI of UNCLOS do not give coastal States any extended legal basis for enforcing rules and regulations for the protection of the marine environment. But because of the clear and unambiguous wording of the provision, and the fact that dumping potentially can damage the seabed and the resources in the subsoil, article 216(1)(a) must be a *lex specialis* right for coastal States to enforce environmentally founded anti-dumping laws on the continental shelf, as well as on a potentially 350 nm recognised prolonged continental shelf.

Following the definition of the term 'dumping' found in article 1(1)(5) of UNCLOS – and in article III(1)(a) of the London Convention – article 216 does *not* encompass discharges (including the release of emissions[30]), as 'dumping' is there defined as the deliberate disposal of waste and man-made structures, such as ships and platforms, at sea. This is underlined by the definition of the term 'discharge' in article 2(3) of the MARPOL Convention, as article 2(3)(b)(i) clearly defines 'discharge' as not including dumping.

[29] Convention for the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (adopted 13 November 1972, entered into force 30 August 1975) 1046 UNTS 120 ('the London Convention').

[30] The term 'discharge' in art 218 can encompass emissions. See ch 10.

Article 216 therefore does not grant any jurisdiction for coastal States to enforce violations of MARPOL Annex VI or (future) GHG regulations.[31]

B. Jurisdiction to Prevent Pollution Resulting from a Maritime Casualty: Article 221

Article 221 of UNCLOS allows coastal State to

> take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing, from pollution or threat of pollution following upon a maritime casualty or acts relating to such a casualty, which may reasonably be expected to result in major harmful consequences.

Article 221 provides a coastal State with an extraterritorial jurisdictional basis for enforcing laws and regulation for the protection of its coastlines and interests beyond the territorial sea. As the article, unlike the other provisions of part XII (including articles 216, 220 and 222), does not limit the jurisdiction to territorial waters, the EEZ or the continental shelf, the phrase 'beyond the territorial sea' must encompass the coastal State's exercise of extraterritorial jurisdiction on the high seas.

The wide-ranging geographical scope of the article is curtailed by the reference to pollution (or the threat thereof) following 'a maritime casualty', which in article 221(2) is defined as a 'collision of vessels, stranding or other incident of navigation, or other occurrence on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo'.

The jurisdictional basis of article 221 is therefore closely linked to the Intervention Convention and the legal basis this Convention provides for coastal States to protect themselves from the pollution that may occur when ships collide, also on the high seas.

Because of the requirement for the pollution to stem from a collision at sea, or an incident on board resulting in material damage, article 221 contains *no* legal basis of for taking action against violations of air pollution regulations, including Annex VI of MARPOL, on the high seas.

Even if a situation could be conceived of where non-foreseeable damage on board (threatening the safety of the ship) results in a violation of MARPOL Annex VI, it should be remembered that, as described in chapter 2, these violations are exempt from prosecution pursuant to article 3 of Annex VI.

Article 221 therefore does not provide coastal States with any extraterritorial jurisdictional basis for enforcing violations of regulation 14 Annex VI on the

[31] Art 216 can, however, provide a jurisdictional basis for taking measures against violations of reg 8.1 of MARPOL Annex I, as described in ch 14.

high seas. And even if applied, the situation would most likely be covered by the scope of article 3 of Annex VI, being a force majeure-like circumstance precluding wrongfulness.

C. Taking Measures against Violations by Ships Making a Transit Passage through a Strait: Article 233

Article 233 of UNCLOS[32] stipulates, as a general rule, that the right of a foreign ship to make a transit passage through an international strait is not prejudiced by the provisions of part XII, including article 220. The exception is the right of coastal States to enforce international rules pertaining to the discharge of oil and noxious substances, implemented in accordance with article 42(1)(b) of UNCLOS. This could, inter alia, include MARPOL Annexes I and II.

If a ship violates such rules while conducting a transit passage through an international strait that borders a coastal State, and this violation results in 'causing or threatening major damage to the marine environment of the straits' then the coastal State 'may take appropriate enforcement measures', provided it respects the safeguards provisions of section 7 of part XII of UNCLOS.

This means that if a foreign ship violates MARPOL Annex I or Annex II while making a transit passage through an international strait, this violation can be acted upon by the coastal State in accordance with article 233. 'Appropriate enforcement measures' must refer to the proportionate approach of article 220(3)–(7), first requiring information from the ship, then stopping and investigating it, and then – if the evidence so warrants – detaining and prosecuting it.

A foreign ship's violation of MARPOL Annex VI, or any other international air emission regulations such as the rules on CO_2/GHG, is not covered by article 42(1)(b) and therefore cannot be the subject of action by a coastal State pursuant to article 233.

V. Conclusion on Coastal State Enforcement

Coastal States are able to take measures against violations of nationally adopted rules and internationally implemented regulations for the protection of the marine environment in accordance with several different provisions of part XII of UNCLOS, depending on the regulatory nature of the legislation. For example, article 216 provides a legal basis for acting against dumping violations, including infringements of the London Convention, and article 221 gives an extraterritorial

[32] Art 233 is in principle a procedural safeguard provision found in section 7 of pt XII of UNCLOS, but its direct reference to bordering coastal States' taking 'appropriate enforcement measures' makes it eligible to be studied in this chapter and in general in ch 12.

basis for countering pollution originating in collisions at sea (with principles following the Intervention Convention). Also, article 233 offers an opportunity for enforcing regulations prohibiting the discharge of oil and other noxious substances into an international strait.

When it comes to coastal State enforcement of legislation pertaining to air pollution from ships, such as MARPOL Annex VI, the legal basis for this is found in article 220 and article 222 of UNCLOS. The geographical scope of the latter provision is limited to the *internal* and *territorial waters* of the State, and article 222 contains no detail on how such enforcement is to be conducted in these areas; thus article 220(1) and (2) provide a supplementary legal basis for such enforcement.

Article 220(1) allows for the taking of measures against all violations in internal and territorial waters and in the EEZ, if the ship afterwards voluntarily calls into a port or at an off-shore terminal in the coastal State.

Article 220(2) provides a special legal basis for enforcing national and international environmental legislation, including on air pollution, adopted in accordance with article 21(1)(f), applying to foreign ships making an *innocent passage* of the territorial sea.

All infringements of sulphur and GHG limits that occur in the *EEZ* can therefore only be acted against by the coastal State pursuant to article 220(1). This is conditional on the ship's afterwards voluntarily calling into a port or at an off-shore terminal in the coastal State. Violations that take place in the EEZ and where the ship is not calling into a port in the coastal State, are subject to the provisions of article 220(3)–(8).

All violations, including of MARPOL Annex VI, can result in the coastal State's requiring the ship to provide certain information if it has *clear grounds* for presuming that a violation has occurred (see article 220(3)).

The more stringent requirements of article 220(5) (significant pollution of the marine environment) and (6) (major damage to the coastline or related interests) make it difficult, if not impossible, to establish the necessary causal link between a specific infringement and specific damage when discussing the application of these provisions on the violation of air pollution rules such as MARPOL Annex VI. The scope of article 220(6) has been somewhat clarified by the ECJ and Advocate General Wahl in the 2018 *Bosphorus Queen* case.[33]

Article 220(7) deals with the lifting of detention in situations governed by article 220(6), provided appropriate economic security has been posted. Article 220(8) clarifies that any national EEZ laws, adopted in accordance with article 211(6), can be enforced by the coastal State in accordance with article 220(3)–(7).

Article 111 of UNCLOS allows a coastal State to conduct a hot pursuit, for example by using a drone with a sniffer attached and a video uplink, pursuant to the *mutatis mutandis* reference to pursuit effected by aircraft in article 111(6).

[33] The *Bosphorus Queen* has been reviewed in ch 5, section V.B.

Article 223 requires coastal States to let representatives from the IMO, other injured (coastal) States and the flag State to attend any legal proceedings initiated in accordance with article 220.

Article 230 dictates that violations of MARPOL Annex VI, and of other environmental legislation, that take place in the EEZ or in the territorial sea can only be met with monetary penalties (fines) imposed by the coastal State. Violations in internal waters can be met with non-monetary penalties, such as imprisonment, but this is often reserved for more serious environmental violations than breaches of regulation 14 of MARPOL Annex VI.

Article 231 requires a coastal State to promptly notify the flag State about any enforcement measure taken against a ship flying its flag. However, if an infringement occurs in the territorial sea then the coastal State is only obligated to inform about any measures taken in legal proceedings. It is under no obligation to notify regarding enforcement measures taken for violations in internal waters, although it is recommended that it does so.

10

The Special Jurisdiction for Port States: Article 218

As already noted in previous chapters, article 92 of UNCLOS[1] not only reaffirms the flag State principle, but it also stipulates that there are exceptions to this principle codified in UNCLOS.

Article 218(1) of part XII of UNCLOS must be considered one of these exceptions, as it provides *port States* with an extraterritorial jurisdictional basis for taking action against violations of international rules for the protection of the marine environment outside areas under their jurisdiction, for example on the high seas.

The port State legal entity found in article 218 was formally introduced with the adoption of UNCLOS in 1982. This new entity joined the flag States and coastal States. It may be described as a State with one or more ports and/or off-shore terminals into or at which foreign ships voluntarily call.

A *coastal State*, with jurisdiction in the different areas and zones as described in chapter 3 and with the right to enforce in them pursuant to article 220, as described in the previous chapter, can therefore also be described as a *port State*.[2] Especially considering that article 220(1), as well as article 218(1), refers to ships voluntarily calling into a port or at an off-shore terminal in the State. The difference lies in the geographical scope of where the infringement has been committed (consummated) by a foreign ship:

(a) If a ship, voluntarily calling upon a port, has committed a violation in the *EEZ*, or in *internal* or *territorial waters* of the State, that State exercises it jurisdiction as a *coastal State* and enforces the regulations pursuant to article 220(1), along with article 222 of UNCLOS regarding violations of air pollution regulations.
(b) If a ship, voluntarily calling into a port, has committed a violation outside those areas, for example on the high seas[3] – or in the waters of another

[1] United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3.

[2] A State – besides being a coastal State and port State – can also be deemed a flag State if vessels are flying its flag and are listed in the State's ship registry.

[3] See LM Paul, 'Using the Protective Principle to Unilaterally Enforce Transitional Marine Pollution Standards, 1053. Paper following the Second International Conference on Marine Debris, 2–7 April 1989,

> State[4] – then the State has jurisdiction over this violation by virtue of being a *port State* in accordance with article 218.[5]

Consequently, the jurisdictions under article 220 and article 218 do not overlap but merely complement each other, as article 218 extends the State's jurisdiction beyond the EEZ.

The use of a different term for that legal entity (port State) is therefore justified, as the effects of the violation do not necessarily have any impact on the enforcing State, nor does the infringement take place in an area under its jurisdiction. Thus the grounds for enforcement pursuant to article 218(1) are very different from those applying to enforcement pursuant to article 220 – and to articles 221 and 222 for that matter.

It should be noted that article 218 contains the only references to *port States* in UNCLOS, not only within part XII, but throughout the whole Convention. The term 'port State' is only used explicitly in article 218(4), but given the heading of article 218, 'Enforcement by port States', and that the possibility of using article 218 rests on the ship's sailing into port (or to an off-shore terminal), this book will use the term 'port State' when referring to States exercising jurisdiction in accordance with article 218(1)–(3).

This is also supported by how the term 'port State' is used in article 218(4), as it clearly refers back to the State entities mentioned in article 218(1)–(3). For instance, the first line of article 218(4) refers to '[t]he records of the investigation carried out by a port State pursuant to this article'. And then it states that 'Any proceedings instituted by the port State on the basis of such an investigation may, subject to section 7 …'.

It is therefore safe to conclude that when article 218(1) refers to *States* undertaking investigations and – if the evidence so warrants – initiating proceedings against foreign ships, it is a reference to *port States*.

Even though no article in UNCLOS, besides article 218, mentions *port States*, article 226, relating to PSC of foreign ships, contains a direct reference to article 218 and thereby implicitly to port States. The same applies to article 217(4) pertaining to flag States' having to respect port State jurisdiction, given the explicit reference in that paragraph to article 218.

Honolulu, Hawaii, 1051, available at http://webcache.googleusercontent.com/search?q=cache:iNC0b6JIg1cJ:swfsc.noaa.gov/publications/TM/SWFSC/NOAA-TM-NMFS-SWFSC-154_P1045.PDF+&cd=1&hl=da&ct=clnk&gl=no.

[4] A Pozdnakova, *Criminal Jurisdiction over Perpetrators of Ship-Source Pollution* (Martinus Nijhoff, 2012) 153.

[5] If a ship, voluntarily calling into a port, is subject to an inspection in port, this is regulated in accordance with arts 224–227 of UNCLOS, as described in ch 4. The State entity that carries out such inspections in port is often referred to as a *port State*, leading to the term Port State Control (PSC). Yet UNCLOS does not use the term 'port State' for describing such inspections, referring instead to States in general – see art 226. As UNCLOS only uses the term 'port State' in art 218 to describe a State's jurisdiction beyond its normal boundaries, ie on the high seas, this book will also use the term to describe this legal entity with far-reaching extraterritorial jurisdiction. The book also uses the term, as applied in ch 4, to describe States that inspect foreign ships at berth in their ports.

I. Article 218 in General

Article 218 consists of four paragraphs, with a distinction between article 218(1) and article 218(2)–(4):

- Article 218(1) provides the important legal basis for port States to exercise their extraterritorial jurisdiction for taking measures against discharge violations that are committed outside the State's territory, meaning on the high seas or in the waters of another State.
- Article 218(2)–(4) clarify the overlapping jurisdiction that may occur if a discharge violation takes place inside another State's territory, as both that State and the port State will have jurisdiction over the same infringement. As article 218(2) refers to violations committed in another State's internal water, territorial sea or EEZ, or to the damage (or threat thereof) to another State, this State, and its overlapping jurisdiction, must be deemed a *coastal State*. This book will therefore refer to article 218(2)–(4) as resolving the matter of overlapping (competing) jurisdictions between a port State pursuant to article 218(1) and a coastal State pursuant to article 220.[6] This is also consistent with how article 218(4) explicitly applies the term 'coastal State', clearly referring to the same State entity mentioned in article 218(2)–(3). This is the same conclusion as was reached regarding the use of the term 'port State' in article 218(4), referring to the same State entity in article 218(1)–(3).

Although it may resolve the question of overlapping jurisdiction between port and coastal States, article 218 does not provide any clarification of the overlapping jurisdiction between a flag State according to article 217 and a port State pursuant to article 218(1), pertaining to discharge violations on the high seas. This overlapping jurisdiction is, however, resolved though article 228(1), as it determines which State can assert primary jurisdiction over such a violation.

This is underlined by the aforementioned article 217(4), referring not only to article 218, but also to article 220 and article 228, which provides that flag States must respect port and coastal State jurisdictions under article 218 and 220, and how these are resolved in accordance with article 228.

The analysis of article 218 in this chapter will primarily focus on article 218(1), as that paragraph provides the essential basis for establishing that a non-flag State (a port State) can take measures against infringements of certain international (International Maritime Organization (IMO)) rules for the protection of the marine environment on the high seas, which is the subject of this book.

The content of article 218(2)–(4) is studied in section VI of this chapter.

[6] Cf art 222 regarding violations of air pollution regulations in internal and territorial waters.

II. Requirements for Exercising High Seas Jurisdiction: Article 218(1)

The precise wording of article 218(1) is reproduced here, as it will be a continual point of reference throughout the entire book from this point on. Article 218(1) reads:

> When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State may undertake investigations and, where the evidence so warrants, institute proceedings in respect of any discharge from that vessel outside the internal waters, territorial sea or exclusive economic zone of that State in violation of applicable international rules and standards established through the competent international organization or general diplomatic conference.

Thus article 218(1) sets out numerous requirements that port States must meet to exercise the extraterritorial jurisdiction under the provision. These are:

- that the vessel (foreign ship) must voluntarily call into a port or at an off-shore terminal of the port State;
- that the port State may only institute legal proceedings where the evidence so warrants;
- that the violation must have taken place outside the port State's own waters;
- that it must be a violation of an international accepted rule or standard; and finally, and most importantly when discussing enforcement of air pollution regulations such as MARPOL Annex VI[7] or future greenhouse gas (GHG) measures,
- that it must be a *discharge* violation – *any* form of discharge.

These requirements will be examined in the following subsections, with close and enquiring focus on the discharge reference in article 218(1), this requirement therefore being being analysed in its own separate section (section III).

A. The Ship Must Voluntarily Call into a Port or at an Off-shore Terminal

It is a requirement for the application of article 218(1) that the ship must voluntarily call into a port or at an off-shore terminal in the port State, meaning that the

[7] International Convention for the Prevention of Pollution from Ships (adopted on 11 February 1973, as modified by the Protocol of 17 February 1978, entered into force 2 October 1983) 1340 UNTS 61 (MARPOL), Annex VI, IMO Publication: IMO-520E.

ship cannot be forced to enter the port.[8] If a State were to force a ship into port, for instance by invoking article 220(6)–(7)[9] or following a hot pursuit according to article 111, that (coastal) State could not also exercise jurisdiction in accordance with article 218(1) over any previously detected discharge violations outside the EEZ.

Circumstances amounting to force majeure forcing a ship into port, such as weather conditions, damage to on-board equipment, etc, should also be regarded as circumstances that could preclude the application of article 218(1), provided these extraordinary circumstances can be proved. It should be recalled that many IMO rules have built-in exemptions for force majeure situations, which bar a (port)State from imposing sanctions. See, for example, regulation 3 of MARPOL Annex VI.

B. Legal Proceedings May be Instituted Only Where the Evidence So Warrants

The requirement that legal proceedings may be instituted only where *the evidence so warrants* must be a demand for the port State to have sufficient proof of a violation before prosecuting the ship(owner). The on-board (PSC) investigations envisaged in article 218(1) ('may undertake investigations') could provide such adequate evidence to 'institute proceedings'. Also, if the violation concerns the discharge of oil or other visible substances, aerial photos, recordings, etc linking the discharge to a specific ship should be sufficient to establish that a violation has occurred.

Proving the discharge of invisible airborne pollutants, such as sulphur emissions, can be much more difficult. As addressed in previous chapters, however, the technical advancements in this field are positive, and it is therefore not inconceivable that some of the technologies described, such as mandatory use of Continuous Emission Monitoring Systems (CEMSs) or detection via the use of *sniffers* attached to drones or planes, used in conjunction with *fuel sampling* and *fuel calculation*, will allow port States to detect and sufficiently prove violations of the 0.5% sulphur limit on the high seas. This would fulfil the onus under article 218(1) to have evidence that *warrants* the institution of legal proceedings.

[8] For the purpose of clarity, the reference to 'off-shore terminals' will not be repeated throughout the chapter from this point on, but should be considered implied whenever reference is made to a foreign ship's calling into a 'port'.

[9] It should be recalled that a coastal State detention in the EEZ pursuant to art 220(6) can result in the coastal State's forcing the ship into port for reasons to do with environmental or navigational safety, or if the required economic security (bail) cannot be provided by the shipowner in a timely manner, or if concerns for the wellbeing of the crew or ship dictate that it should go into port.

C. The Violation Must have Taken Place Outside Port State Territory

The geographical scope of article 218(1) is unique, as it provides port States with an extraterritorial jurisdictional basis for enforcing measures against discharge violations outside their own territory, which encompasses violations taking place on the *high seas*. This conclusion is also reached by Advocate General Kokott in her Opinion in the *Intertanko case*[10] before the European Court of Justice (ECJ), discussed in chapter 5. Advocate General Kokott emphasises, in paragraph 61 of the Opinion[11] – when referring to article 218 of UNCLOS – that 'Such proceedings presuppose that the State concerned is entitled to impose penalties for such discharges on the high seas.'

The reason this author describes this jurisdictional basis as being 'unique' is that it conflicts with a basic principle within international law that was described in chapter 6 – a principle that stipulates that a State's omnipotent right to *prescribe* rules (including implementing IMO regulations) applying outside its territory is curtailed by its limited jurisdictional right to *enforce* and *adjudicate on* violations of those rules. This basic principle can nevertheless be set aside by an international convention pursuant to the *first Lotus principle*, established in the *Lotus case*, also described in chapter 6.[12]

Article 218(1) of UNCLOS represents such an exception, codified in a convention bestowing extraterritorial enforcement rights on a (port) State, as the 167 State parties to UNCLOS have accepted this by adopting and ratifying the Convention, which includes the contents of part XII and the extraterritorial port State jurisdiction of article 218.

It should also be noted that article 218(1) has a focus on enforcing *international* rules and not nationally adopted rules (see section II.D), which eases any concerns relating to allowing extraterritorial enforcement.

D. It Must be a Violation of an International Accepted Rule or Standard

Article 218(1) refers to the 'violation of applicable international rules and standards established through the competent international organization or general diplomatic conference'. This means that the extraterritorial jurisdiction of article 218(1) applies only to international rules implemented by the port State and not to national rules adopted in accordance with articles 211 or 212.

[10] Case C-308/06 *Intertanko, Intercargo, Greek Shipping Co-operation Committee, Lloyd's Register, International Salvage Union v Secretary of State for Transport*, ECLI:EU:C:2008:312.

[11] Advocate General Juliane Kokott's Advisory Opinion of 20 November 2007 in the *Intertanko case*.

[12] *SS Lotus (France v Turkey)* PCIJ Rep Ser A No 10.

The reference to these international rules' being established through the 'competent international organization' is, as concluded in previous chapters, a direct reference to the IMO.[13] *Discharge* violations therefore must mean IMO regulations on the hindrance of pollution of the marine environment through discharges from ships.

Without anticipating the detailed discussion of the next section relating to the term 'discharge' encompassing emissions from ships, it should briefly be noted that the MARPOL Convention,[14] including all of its Annexes, and the BWM Convention[15] represent IMO rules and standards that fall within the scope of article 218(1) as they focus on prohibiting the discharge of polluting substances into the sea or air. Also, future IMO regulations on GHG would be covered by article 218(1).[16]

The London Convention on dumping is not subject to the jurisdiction of article 218, as UNCLOS, the London Convention and the MARPOL Convention all define 'dumping' in a manner that does not include 'discharge'.[17] Violations of dumping rules can be acted on by coastal, port and flag States in accordance with article 216 of UNCLOS.

The Hong Kong Convention on Ship Recycling[18] and the Nairobi Convention on Wreck Removal[19] are also not covered by the scope of article 218, as they do not concern themselves with prohibiting any discharges from ships.

Potential future IMO regulations on Black Carbon and Grey Water, and updated standards on open loop scrubber discharge limits could be covered by the reference in article 218(1) to international rules and standards.

III. Discharge Violations

The scope of article 218 of UNCLOS is somewhat narrow compared to that of article 217 and article 220(1), as the provision applies exclusively to *discharge violations*. It is therefore essential to establish exactly what forms of violations are covered by the term 'discharge'. The initial step towards determining this is

[13] See *Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization*, LEG/MISC.8 (2014) 56.

[14] See Y Tanaka, *The International Law of the Sea*, 2nd edn (Cambridge University Press, 2015) 296.

[15] The International Convention for the control and management of ship's ballast water and sediments, 2004 (adopted 13 February 2004, entered into force 8 September 2017) ('the BWM Convention').

[16] The enforcement of the current regulations – MARPOL Annexes I–VI (but not reg 14) and the BWM Convention – and future GHG regulations through art 218 is analysed in Part III of this book.

[17] See art 1(1)(5) of UNCLOS; art III (1)(a) of the Convention for the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (adopted 13 November 1972, entered into force 30 August 1975) 1046 UNTS 120 ('the London Convention'); and art 2(3)(b)(i) of the MARPOL Convention.

[18] The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (adopted 15 May 2009, not yet entered into force) ('the Hong Kong Convention').

[19] The Nairobi International Convention on the Removal of Wrecks (adopted 18 May 2007, entered into force 14 April 2015) ('the Nairobi Convention').

to examine whether UNCLOS itself defines the term: unlike other terms, such as 'pollution of the marine environment' and 'dumping', the Convention does not define 'discharge'.

If the extent and applicability of a term or word in a convention needs defining, international law lays down basic principles of interpretation and clarification. These principles are embodied in section 3 (articles 31–33) of the Vienna Convention on the Law of Treaties (VCLT)[20] pertaining to 'Interpretation of treaties'. The conclusion resulting from this interpretation can then be compared to definitions of the term (here 'discharge') in other relevant international legislation, in this instance such as article 2(3) of the MARPOL Convention, which also applies to its Annexes pursuant to article 1(2), and how the term is already *used* in regulation 12 of MARPOL Annex VI.

First, though, the context of how the term is applied in article 218(1) must be established, as well as a comparison of its use in other provisions of UNCLOS.

A. Any Discharge is Covered by Article 218(1)

The term 'discharge' is, as established in chapter 9, applied in article 220(5)–(6) to describe how a discharge from a ship can cause (or threaten to cause) significant pollution, which may result in major damage to the coastline and the related interests of the coastal State. The term 'discharge' is thus used with certain restrictions regarding what forms of discharge are covered by these paragraphs: the discharge must result in tangible pollution that has caused or may cause visible damage.

Article 42(b) of UNCLOS also uses the term 'discharge' in a very specified context, referring to regulations prohibiting 'the discharge of oil, oily wastes and other noxious substances in the strait', against which measures can be enforced in accordance with article 233. Again, the scope of the term is limited by its application in the provision to 'only' cover the discharge of oil, oily wastes and other noxious substances.

When studying article 218(1) it becomes clear that no such limitations are set on the application of the term 'discharge'. On the contrary, the wording of the paragraph unambiguously gives the term the widest possible use and interpretation by referring to '*any* discharge'.[21]

No other provision in UNCLOS that uses the term 'discharge' includes such reference to *any* form of discharge. It must therefore be the intention that the term in article 218(1) is to cover all possible applications. This means that the term can be interpreted in the broadest conceivable way when using the provisions of section 3 VCLT.

[20] Vienna Convention on the Law of Treaties 1969 (adopted 22 May 1969, entered into force 27 January 1980) 1155 UNTS 331 (VCLT).

[21] Emphasis added.

That such wording – 'any discharge' – is to be regarded in its widest possible sense, allowing for the broadest possible interpretation, was confirmed by the ECJ in the *Bosphorus Queen*,[22] discussed in chapter 5. The Court specified in paragraph 81, when determining the extent of the term 'any resources' in article 220(6) of UNCLOS:

> It must be observed that Article 220(6) of the Montego Bay Convention [UNCLOS] refers to damage caused or the threat of damage to 'any' resources of the territorial sea or the EEZ of the coastal State. Therefore, that provision must be interpreted broadly in that regard, which is clear from its wording, and must not be understood as excluding certain resources from the scope of that provision.

This confirms that the use of the word 'any' allows for application of the broadest possible meaning of the word following, be it 'discharge' or 'resources'. The term 'discharge' in article 218(1) can therefore be interpreted in the broadest possible sense of the word.

B. Interpretation of the Term 'Discharge' in Accordance with Article 31 VCLT

The VCLT codifies widely recognised principles of international treaty law, many of which represent principles of customary law. The VCLT has been ratified by 115 States. Forty-five other States have signed the treaty, obliging them not to act contrary to the principles of the Convention according to article 18(a) VCLT.

All States must, besides the 115 ratifying States and the 45 signatory States, abide by the principles of interpretation under articles 31 and 32 VCLT, as these represent international customary law. This is affirmed in a report by the International Law Commission (ILC) to UN General Assembly, in which the Commission said, 'The VCLT rules on treaty interpretation – articles 31 and 32 – are recognized as customary law and widely applied in the WTO system.'[23]

Articles 31 and 32 VCLT determine how a word or a term in a treaty or convention should be interpreted when establishing the meaning and extent of this. This includes interpreting words and terms in UNCLOS, as expressed in another ILC report from 2017:

> The rules of international law relating to the protection of the atmosphere and other relevant rules of international law, including inter alia the rules of international trade and investment law, of *the law of the sea* and of international human rights law, should, to the extent possible, be identified, interpreted and applied in order to give

[22] Case C-15/17 *Bosphorus Queen Shipping Ltd Corp v Rajavartiolaitos*, ECLI:EU:C:2018:557.

[23] ILC, *Fragmentation of international law: difficulties arising from the diversification and expansion of international law*, prepared by Martti Koskenniemi, Report A/CN.4/L.682 (presented at the 58th session in Geneva, 1 May–9 June and 3 July–11 August 2006) 89, para 168.

> rise to a single set of compatible obligations, in line with the principles of harmonization and systemic integration, and with a view to avoiding conflicts. This should be done in accordance with the relevant rules set forth in the Vienna Convention on the Law of Treaties of 1969, including articles 30 and 31, para 3 (c), and the principles and rules of customary international law.[24]

This conclusion is supported by the ECJ in the *Bosphorus Queen case*, where the Court in paragraph 67 directly stated that '[i]n order to interpret the provisions of the Montego Bay Convention [UNCLOS] it is necessary to refer to the rules of customary international law reflected by Article 31 of the Vienna Convention'.

The 2017 ILC Report and the statement of the ECJ in the *Bosphorus Queen* refer to article 31 VCLT and not article 32. The reason for this is found in the wording of article 32, which requires article 31 to be used as the primary interpretational source, article 32 being applied as a supplement to article 31 when necessary.

Article 31(1) VCLT provides that 'A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.' The term 'discharge' in article 218(1) of UNCLOS is therefore to be interpreted in accordance with article 31 VCLT.

The reference to the interpretation's being done in good faith and 'in accordance with the ordinary meaning to be given to the terms of the treaty' denotes that the word or term being interpreted in accordance with article 31 VCLT should be understood in accordance with its *ordinary meaning*. The ordinary meaning of a word or term is best found by using a dictionary and/or a thesaurus. To determine the ordinary meaning of the word 'discharge'[25] pursuant to article 31(1) VCLT – thereby determining the extent in article 218(1) in UNCLOS – recognised English dictionaries and thesauruses must be used. For example:

- 'Allow (a liquid, gas, or other substance) to flow out from where it has been confined.'[26]
- To 'emit', 'let out', 'give off', 'exude', 'ooze', 'jet'.[27]
- '[T]o send out a substance, especially waste liquid or gas' and 'Emitting and ejecting' (with further definitions of 'emissions', 'Carbon Emissions', and 'Emanate from/through').[28]

[24] ILC, *United Nations – Annual Report of the International Law Commission, Sixty-ninth session*, Report A/72/10 (1 May–2 June and 3 July–4 August 2017) ch VI, 'Protection of the atmosphere', 155 (emphasis added).

[25] The English version of UNCLOS (ie the word 'discharge') is used for determining the scope of art 218(1), as the English version, along with the French, Russian, Spanish, Chinese and Arabic versions, is one of the confirmed authentic original texts under art 320 of UNCLOS, which are those that should form the basis of any interpretation in accordance with art 33(2) VCLT.

[26] See at https://en.oxforddictionaries.com/definition/discharge (definition no 2).

[27] See at https://en.oxforddictionaries.com/thesaurus/discharge.

[28] See at https://dictionary.cambridge.org/dictionary/english/discharge?q=discharge.

- '[T]o give outlet or vent to: emit'; 'vehicles discharging exhaust fumes'.[29]
- To 'discharge gas' and send 'substances into the air' (eg originating from a factory).[30]

To show that these definitions of the term 'discharge' are not new, *Longman: Dictionary of Contemporary English* (1987)[31] defines 'discharge' as meaning, inter alia, 'to send, pour, or let out (gas, liquid etc): The chimney discharges smoke'.

This author concludes, based on these definitions, that an interpretation of the term 'discharge' pursuant to article 31(1) VCLT leads to the term in article 218(1) of UNCLOS, inter alia, covering *emissions* from ships, such as sulphur and CO_2 (GHG) emissions.[32] This is based on the references to 'discharge' encompassing the release of *gases*, the release of *smoke* from chimneys and *exhaust fumes* from vehicles; and especially references to 'emitting', which includes the release of *carbon emissions*.

This means that smoke, gas, exhaust fumes and emissions, including carbon (and sulphur) emissions, emanating from the 'chimney' (funnel) of a ship are covered by the term 'discharge' in article 218(1) of UNCLOS. A ship's emissions of SOx, NOx, CO_2 (GHG), ozone-depleting substances (ODSs) and other regulated air pollutant substances are therefore covered by article 218(1).

This conclusion must also be in accordance with the *object* and *purpose* of part XII of UNCLOS, as expressed in article 31(1) (in fine) VCLT, as the provisions of part XII seek to protect the marine environment from pollution, which also encompasses pollution that can damage human health, in accordance with the definition in article 1(1)4) of UNCLOS.

Port States can therefore exercise extraterritorial jurisdiction in accordance with article 218(1) over violations of IMO regulations on air pollution, for instance when taking action against violations of the 0.5% sulphur limit according to regulation 14.1.3 of MARPOL Annex VI on the high seas.

C. The Definition of 'Discharge' in the MARPOL Convention

The conclusion – set out in the previous section – that 'discharge' in article 218(1) covers emissions from ships, is supported by the way in which 'discharge' is defined in article 2(3) of the MARPOL Convention. (Unlike UNCLOS, the MARPOL Convention does contain a definition of the term.) This definition also applies to the Annexes to the MARPOL Convention (see article 1(2)). This includes Annex VI, which does not set out its own definition of the word.

[29] See at https://www.merriam-webster.com/dictionary/discharge (definition 2.d).
[30] See at https://dictionary.cambridge.org/dictionary/english/discharge?q=discharge.
[31] *Longman: Dictionary of Contemporary English*, 2nd edn (Longman, 1987).
[32] As art 31 VCLT provides a clear conclusion on the definition and extent of the term 'discharge', it is not necessary to resort to art 32.

The definition of 'discharge' in the MARPOL Convention is of great interpretational value, as MARPOL is a highly recognised legal instrument within international law for the protection of the marine environment, with 158 States parties representing over 99% of the world's merchant fleet tonnage. It would therefore be preferable for there to be consistency between the general (formal) jurisdictional basis provided in article 218 of UNCLOS and the specific (material) environmental regulation of Annex VI, regarding how the term 'discharge' is applied and defined, as the rules in Annex VI are enforced within the framework of UNCLOS.[33]

This need for a consistent approach to enforcement between the two conventions is emphasised by the cross-references in article 9(2) of the MARPOL Convention and article 237 of UNCLOS, each imposing obligations on the States parties to respect the principles outlined in the other, as described in chapter 3.

The MARPOL Convention defines 'discharge of harmful substances' in article 2(3)(a)–(b), with article 2(3)(a) making a 'positive demarcation' of the term by stating what it covers, while article 2(3)(b)*bis*(i)–(iii) make a 'negative demarcation' by asserting what the term does not cover, such as dumping, exploration of the seabed and scientific research. The negative listing in article 2(3)(b) will not be addressed further, as it contains no relevant references or examples pertaining to whether the term 'discharge' can cover emissions. This is in contrast to article 2(3)(a), which sets out useful examples for determining the extent of the expression.

Article 2(3)(a) of the MARPOL Convention provides:

> (a) Discharge, in relation to harmful substances or effluents containing such substances, means any release howsoever caused from a ship and includes any escape, disposal, spilling, leaking, pumping, emitting or emptying …

First, it must be established that the reference to 'harmful substances' covers air pollutants such as sulphur and GHG, because of their adverse impacts on both the environment and human health.[34]

The reference to 'any release howsoever caused' encompasses unintended discharges.[35] The word 'any' – as was the case with 'any discharge' in article 218 of UNCLOS – clearly indicates, in this context too, that the broadest possible application of the term 'release' is intended.[36] Operational discharges of harmful

[33] A Mihneva-Natova, *The Relationship between United Nations Convention on the Law of the Sea and the IMO Conventions* (UN and The Nippon Foundation of Japan Fellowship, 2005) 16, where she states 'Article 2(2) and (3) of MARPOL includes a definition of "harmful substances" which is entirely compatible with the definition of "pollution of the marine environment" included in Article 1(4) of the Law of the Sea Convention.'

[34] See the description of the harmful effects from sulphur pollution in ch 1, and from GHG pollution in Part IV of this book.

[35] A Kanehara, 'Environmental Protection of Ocean and Flag-State Jurisdiction', Paper presented at the 8th Conference of SCA Qingdao, China 27–30 May 2008, 5.

[36] See H Ringbom, *The International Legal Framework for Monitoring and Enforcing Compliance with the Sulphur in Fuel Requirements of MARPOL Annex VI*, a CompMon Report, 4th version (2017) 32, fn 104.

substances resulting from a combustion process on board are therefore covered by this. For example, the release of SOx, NOx and CO_2 emissions following combustion of marine fuel to create energy and propulsion.

An initial analysis of article 2(3) establishes that nothing in the provision bars or limits the definition of 'discharge' from applying to emissions being discharged from ships as part of a combustion process. Still, the positive list of defining examples in article 2(3)(a) will be scrutinised next, to determine whether the MARPOL Convention, and therefore Annex VI, defines the term 'discharge' to cover emissions from ships.[37]

The examples of 'discharge' provided in article 2(3)(a) are: 'escape', 'disposal', 'spilling', 'leaking', 'pumping', 'emitting' or 'emptying'. Initially it is worth noticing that the provision makes no reference to, or gives any indication of, any of these terms having a higher interpretational value than the others for determining the scope of the term 'discharge', so all these definitions are equal in their capacity to clarify the meaning of 'discharge' pursuant to a reverse conclusion from article 31(4) VCLT.

The references to 'disposal, spilling, leaking, pumping … [and] emptying' relate to the 'classical' use of the term 'discharge' in connection with the release of a substance (liquid, etc) into the sea. This encompasses the discharge of oil, chemicals, sewage, garbage and ballast water, etc covered by MARPOL Annexes I–V and the BWM Convention.

The reference to 'emitting' is, however, extremely relevant when determining whether the term 'discharge' can cover emissions, as 'emitting' is the present participle of the verb 'to emit'. The noun 'emission' – which also derives from the verb – means, inter alia, 'a substance which is emitted'.[38] This is supported by how the term 'emitting' is defined and exemplified in various English dictionaries and thesauruses, once again applying the interpretational principles of article 31(1) VCLT.[39] 'Emitting' ('emit') is defined as meaning:

- 'Produce and discharge (something, especially gas or radiation).' The same dictionary gives the following use of the word in a sentence: 'even the best cars emit carbon dioxide'.[40]
- '[D]ischarge', 'release', 'give off', 'effuse', 'vent', 'give vent to'.[41]

[37] Professor Henrik Ringbom also notes that 'article 2(3)(a)contains a very broad definition of the term "discharge", covering "any release howsoever caused from a ship"': H Ringbom, 'Enforcement of the Sulphur in Fuel Requirements: Same, Same But Different', available at https://webcache.googleusercontent.com/search?q=cache:EBk8-0aReA0J:https://www.duo.uio.no/bitstream/handle/10852/61600/SO-Artikel-Ringbom.pdf%3Fsequence%3D4%26isAllowed%3Dy+&cd=1&hl=da&ct=clnk&gl=no, 14, fn 54.

[38] *Concise Oxford English Dictionary*, 11th edn rev'd (Oxford University Press, 2006).

[39] The English version of the MARPOL Convention is used, and thus the word 'emitting', as the English version is one of the officially confirmed authentic texts under art 20 of the MARPOL Convention, and therefore to be used when interpreting terms under art 33(2) VCLT.

[40] See at https://en.oxforddictionaries.com/definition/emit.

[41] See at https://en.oxforddictionaries.com/thesaurus/emit.

- '[T]o send out a beam, noise, smell, or gas'.[42]
- '[T]o send forth (liquid, light, heat, sound, particles, etc); discharge'.[43]

Webster's Electronic Dictionary also gives the following example of use of the term 'emitting': 'chimneys emitting thick, black smoke'.[44]

Accordingly, it can be concluded that the definition of 'discharge' in article 2(3)(a) of the MARPOL Convention, by referring to 'emitting', allows for the term to cover emissions, including sulphur and CO_2 emissions being released from ships as a result of the combustion of marine fuels.[45]

D. MARPOL Annex VI Uses the Term 'Discharge' to Cover Emissions

That this conclusion, in accordance with article 1(2) of the MARPOL Convention, also applies to its Annexes is fortuitous, as MARPOL Annex VI already uses the term 'discharge' to describe the release of emissions.

Regulation 12 of MARPOL Annex VI regulates ships' emissions of ODSs. Regulation 12.7 provides that a ship must carry an 'Ozone-depleting Substance record book' where, inter alia, information on any accidental release of ODSs into the atmosphere is to be logged by the ship.

Regulation 12.7.3 specifies that this record book shall include information on the 'discharge of ozone-depleting substances to the atmosphere'. This indisputably establishes that the release of emissions regulated in MARPOL Annex VI, including sulphur emissions pursuant to regulation 14, can be described as the *discharge of emissions* into the atmosphere.

E. Conclusion: The Term 'Discharge' in Article 218 as Encompassing Emissions

The result of interpreting the term 'discharge' in article 218(1) of UNCLOS in accordance with article 31(1) VCLT confirms that 'discharge' can cover the release of *emissions*. This is in full alignment with how the term is defined in article 2(3)(a) of the MARPOL Convention, and with how it is already applied in regulation 12.7.3 of MARPOL Annex VI.

Given this result, this author concludes that the term 'discharge' in article 218(1) of UNCLOS can cover the release of emissions from ships, including sulphur emissions. This allows port States to assert the extraterritorial jurisdictional basis

[42] See at https://dictionary.cambridge.org/dictionary/english/emit?q=emitting.
[43] See at http://www.dictionary.com/browse/emitting.
[44] See at https://www.merriam-webster.com/dictionary/emitting.
[45] Ringbom, n 37, 14, fn 54.

of the provision for taking measures against violations of the 0.5% sulphur limit in regulation 14.1.3 of MARPOL Annex VI, and also against infringements that take place on the high seas.

This conclusion also applies to the enforcement of other applicable IMO regulations, such as the other Annexes of the MARPOL Convention and the BWM Convention, and will apply to any future regulations on CO_2 (GHG) emissions. This is described in Part III (chapters 14 and 15) of this book.

IV. Port State Enforcement of MARPOL Annex VI on the High Seas

A port State can enforce the 0.5% sulphur limit on the high seas pursuant to article 218(1) of UNCLOS, provided the evidence of a violation so warrants and provided the ship afterwards voluntarily calls into a port in the State.

This means that port States can impose fines that remove (confiscate) all savings achieved by violating regulation 14.1.3 of Annex VI, including on the high seas. Such fines can also include a dissuasive punitive element, which increases in the event of aggravating circumstances, for instance in cases of recidivism. The fines prescribed by port States should therefore met the same criteria that an effective flag State fine must meet, as described in chapter 8, modelled on the principles found in article 18 of the Sulphur Directive.[46]

It should be noted that the jurisdiction for port States to take action against violations in accordance with article 218(1) does not require the enforcing port State to be the next port of call for the ship after the infringement, if any previous port States into which the ship had called have not taken measures to address the violation. If a ship calls into a port after committing a violation on the high seas, but manages to leave the port without that port State's taking action in response to the violation, perhaps due to a short stay in port or the port State's being unable to take enforcement measures, then other port States into which the ship subsequently calls can investigate – and if the evidence so warrants – initiate legal proceedings for the violation that took place during a previous 'leg' (part) of the vessel's journey.

Once a port State has effectively taken measures against the violation, other port States are barred from doing so in respect of the same violation due to the principle of *ne bis in idem*.[47] The same applies if the flag State has taken effective measures as regards the violation. The principle of *ne bis in idem* is codified in article 228(2) of UNCLOS, as discussed in chapter 12.

As the foreign ship, pursuant to article 218(1), has voluntarily called into a port in the port State, the principle of *no more favourable treatment* (NMFT) applies,

[46] Directive 2016/802 of the European Parliament and of the Council of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels [2016] OJ L132/58.

[47] A Henriksen, *International Law* (Oxford University Press, 2017) 96.

enabling the port State to investigate and prosecute the foreign ship for violations of MARPOL Annex VI even though it is flying a flag from a (flag) State that is not party to the Annex.[48] (See regulation 10.3 of Annex VI and article 5(4) of the MARPOL Convention.[49])

Such a violation of regulation 14.1.3 of Annex VI can be the subject of enforcement measures by the port State as part of a PSC inspection,[50] as regulation 11.6 of MARPOL Annex VI stipulates:

> The international law concerning the prevention, reduction, and control of pollution of the marine environment from ships, including that law relating to enforcement and safeguards, in force at the time of application or interpretation of this Annex, applies, mutatis mutandis, to the rules and standards set forth in this Annex.

Regulation 11 deals with the detection of and enforcement against violations of MARPOL Annex VI through PSC, and article 218(1) of UNCLOS must fall within the category of 'international law concerning the prevention, reduction, and control of pollution of the marine environment from ships, including that law relating to enforcement', especially as article 218 is found in section 6 of part XII of UNCLOS relating to 'enforcement'.

The interpretation of the term 'discharge' does therefore apply *mutatis mutandis* to Annex VI, although no necessary changes are required as this UNCLOS interpretation coincides with the existing definition of the term in the MARPOL Convention and how it is already applied in Annex VI (regulation 12.7.3).[51]

The reference in regulation 11.6 of MARPOL Annex VI to 'safeguards' must, inter alia, relate to the safeguards set out in section 7 of part XII of UNCLOS, as

[48] JA Zerk, *Extraterritorial Jurisdiction: Lessons for the Business and Human Rights Sphere from Six Regulatory Areas* (Harvard Corporate Social Responsibility Initiative, 2010) 194.

[49] See ch 4 for further information on the NMFT principle.

[50] Coordinated inspection campaigns between the different Memorandums of Understanding (MoUs), eg Paris MoU, Tokyo MoU and Indian Ocean MoU, as described in ch 4, could prove to be valuable tools of enforcement (and deterrence) in response to violations of the 0.5% sulphur limit on the high seas, as the participating port States can take measures against these violations pursuant to art 218(1) of UNCLOS and by applying the NMFT principle.

[51] Dr Erik J Molenaar and Professor Henrik Ringbom have argued that reg 11.6 of Annex VI, by itself, constitutes a legal basis for interpreting art 218 of UNCLOS to encompass emissions. E Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (Kluwer Law International, 1998) 508–09; and Ringbom, n 37, 14. This author respectfully disagrees with this stance as, inter alia, the *lex superior* principle prevents MARPOL Annex VI – a IMO regulation with 96 parties – from interpreting the scope of art 218 of UNCLOS – a UN framework convention (constitution) for the law of the sea with 167 parties. Using the VCLT to interpret UNCLOS is conversely a recognised approach within international law for determining the scope of a provision such as art 218. Also, the 'principle of legality' (*nullum crimen sine lege, nulla poena sine lege*) dictates that criminal liability should only be based upon infringements of legislation that is expressed with adequate precision and clarity. (See, eg, paras 70–71 of the *Intertanko case* (n 10) for the application of this principle.) Basing a port State's extraterritorial high seas jurisdiction on a *mutatis mutandis* reference found in a lower-ranking legislative text can hardly meet this criterion. Essentially, reg 11.6 of Annex VI merely allows for art 218 of UNCLOS to be interpreted so as to encompass emissions by way of art 31 VCLT. Such a conclusion is also supported by Advocate General Juliane Kokott's Advisory Opinion in the *Intertanko case*. The statement made by the Advocate General not only reflects her own opinion, but also refers to official statements made by different EU Member States and EU institutions: 'However, as Denmark, France, the Council

they also represent international law. Article 228(1), which determines the overlapping high seas jurisdiction between port and flag States, is such a safeguard provision as is found in section 7. This provision is analysed in the next chapter. Other procedural safeguards, including articles 223, 230 and 231 of section 7 of part XII of UNCLOS, are, however, also relevant when discussing port State enforcement of MARPOL Annex VI.

A. Port State Obligations under Article 223

Article 223 of UNCLOS requires port States – as was the case for flag States and coastal States (see chapters 8 and 9) – to allow representatives from the IMO, the flag State and an injured coastal State to attend any legal proceedings instigated in accordance with article 218(1). These representatives must enjoy international (diplomatic) rights.

B. Port State Obligations under Article 230

Port States can only sanction a violation that is acted on in accordance with article 218 with a *monetary penalty* (fine) pursuant to article 230(1), as the violation by definition will take place outside the prosecuting (port) State's territorial sea – a requirement for invoking article 218(1). This restriction applies irrespective of whether it was a deliberate infringement or not.

As noted previously, the extraterritorial jurisdictional basis of article 218(1) allows port States to impose fines that strip all savings made from the violation, and which include a punitive element. For example, for violations of the 0.5% sulphur limit in Annex VI on the high seas.

C. Port State Obligations under Article 231

Article 231 of UNCLOS requires all States, including port States, to promptly notify the flag State and other States concerned of any enforcement measure taken in accordance with the provisions of section 6 of part XII, such as article 218.

A port State that investigates or institutes legal proceedings against a foreign ship for a violation of regulation 14.1.3 of Annex VI on the high seas must immediately

and the Commission in particular correctly point out, basing oneself strictly on the wording of Marpol 73/78 would lead to absurd results. Even discharges resulting from intentional damage to a ship or its equipment would be permitted as long as neither the master nor the owner acted with intent or recklessly. It is thus necessary not only to interpret Marpol 73/78 in isolation on the basis of its wording, but also to take account of its objectives and its function within the framework of the Convention on the Law of the Sea' (Advocate General Juliane Kokott's, Advisory Opinion in the *Intertanko case*, n 11, paras 86–87). Reg 11.6 cannot, by itself, lift art 218 of UNCLOS to cover emissions, but can facilitate the application of the VCLT interpretation.

inform the flag State thereof, meaning *consular officers* and, if possible, *the maritime authority* of the flag State.

This information, provided by the port State to the flag State in accordance with article 231, also plays an extremely vital role when determining whether a flag State will lose its jurisdiction over such a high seas violation pursuant to article 228(1). This would occur, for instance, if the flag State did not respond to an infringement effectively within the six-month deadline set out in the provision – a deadline that begins with the article 231 notification (see chapter 11).

V. Article 218(1) Represents Customary International Law

All States that are parties to UNCLOS can apply article 218(1) to assume extraterritorial jurisdiction over MARPOL Annex VI violations on the high seas, regardless of whether these States also are parties to the VCLT, as the interpretation provisions of VCLT (articles 31 and 32) represent customary international law, recalling the previously reproduced statement of the ILC,[52] and can therefore be applied by all States.

Some States, including the US, are not parties to UNCLOS, but if article 218(1) of the Convention – like articles 31 and 32 VCLT – can be seen as representing customary international law, it would allow these non-party States to apply the same high seas enforcement principles pertaining to discharge violations.

This author believes that article 218(1) codifies basic principles of customary international law for the protection of the marine environment (including human health) from pollution, including air pollution.[53] This belief is founded upon the assumption that the principles of article 218(1) represent *consistent repetition of a particular behaviour* (the objective criterion),[54] as States, for *a considerable period of time*[55] – dating back to before UNCLOS, with the adoption of the Intervention Convention in 1969[56] – have exercised extraterritorial enforcement outside their own waters to protect themselves from high seas pollution.

[52] See extract in the text at n 24 above.

[53] Paul, n 3, 1054.

[54] Henriksen, n 47, 25.

[55] The fact that the principles of art 218(1) have been known since the adoption of UNCLOS in 1982 may in itself be enough to amount to *consistent repetition of a particular behaviour* based on the ICJ's reference in para 74 of the judgment in the *North Sea Continental Shelf cases* (*North Sea Continental Shelf cases, Federal Republic of Germany/Denmark and Federal Republic of Germany/Netherlands*, Judgment, 20 February 1969, [1969] ICJ Rep 3), where the Court emphasised that although a rule has only been applied for a 'short period of time', that does not automatically bar it from becoming a customary rule. See this example in Henriksen, n 47, 25.

[56] The Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (adopted 29 November 1969, entered into force 6 May 1975) 970 UNTS 211 ('the Intervention Convention').

This also builds on the assumption that the principles of article 218(1) represent generally accepted and applied principles of international law (*opinio juris sive necessitatis*,[57] ie the subjective criterion) as the 167 parties to UNCLOS have accepted the legal basis of article 218(1).[58] Discussions on meeting the subjective and objective criteria are also found in chapter 4 regarding the principle of NMFT.

States that are not parties to UNCLOS, for example the US, can therefore also apply the principles of article 218(1) of UNCLOS, as it represents customary international (maritime) law.

Conversely, those non-party States should also respect the principles of article 218(2)–(4) and article 228(1) pertaining to overlapping jurisdiction with coastal and flag States, if they exercise such extraterritorial jurisdiction in accordance with *customary law*, as non-party States should not be able to achieve a more favourable inter partes position than those (coastal and flag) States that are party to UNCLOS.

VI. Limitation of Port State Jurisdiction: Article 218(2)–(4)

As the geographical scope of article 218(1) enables a port State to exercise jurisdiction over discharge violations taking place outside its own territory, it not only covers violations on the high seas, but also, in principle, infringements occurring within the territory (internal or territorial waters, or in the EEZ) of another (coastal) State that could also have a jurisdictional claim over these violations pursuant to article 220 of UNCLOS.

Article 218(2)–(4) seek to clarify the potential overlapping jurisdiction between a port State and coastal State relating to a violation that occurred within the territory of the latter. It should be remembered that in these situations, the ship that commits the violation is *foreign* to both the coastal State and the port State, by flying the flag of a third (flag) State.

Article 218(2) provides the essential legal basis for determining such overlapping jurisdiction, while article 218(3) merely requires the port State to carry out investigations when requested. Article 218(4) imposes certain procedural obligations upon the port State to deliver records, evidence and any economic security posted to the coastal State.

Article 218(2)–(4) contain several references to the *flag State*, but it should be noted that all these references 'merely' require the port State to investigate, institute proceedings and inform when so requested by the flag State. These provisions

[57] See Henriksen, n 47, 27.
[58] GG Schram, 'Havretten og de nordiske lande' (1984) 1 *De nordiske juristmøter* 401, 419.

do entitle a flag State to require a port State to stop any ex officio proceedings instituted. As stated on numerous previous occasions in this book, this question – of overlapping jurisdiction between a port State (article 218(1)) and a flag State (article 217) over violations occurring on the high seas – is resolved through article 228(1).

A. Respecting Coastal State Jurisdiction: Article 218(2)

Article 218(2) curtails the broad geographical port State jurisdiction of article 218(1) by providing that if a discharge violation takes place in another (coastal) State's internal or territorial waters or in the EEZ, or the offence damaged or threatened a (coastal) State, then the port State is barred from instituting proceedings unless the affected coastal State – or the flag State – so requests.[59] Or to rephrase: the extraterritorial jurisdiction of the port State according to article 218(1) is subordinated to the coastal State's territorial jurisdiction pursuant to articles 220 and 222.

An interesting question could arise regarding violations of air pollution regulations, such as regulation 14 of MARPOL Annex VI, that take place in a coastal State's EEZ. A port State would have jurisdiction over this violation in accordance with article 218(1) given the geographical scope of the provision. Coastal States also have jurisdiction over violations in their EEZ pursuant to article 220(1) and (5)–(6). But if the foreign ship does not call into a port in the coastal State then the right of the coastal State to take measures against all violations under article 220(1) becomes irrelevant.

The coastal State's legal basis for acting in response to such violations is therefore article 220(5)–(6), which confer the rights to stop and detain a vessel, and to initiate proceedings. Yet, recalling the discussion in chapter 9, it could be difficult for a coastal State to invoke these rights if the infringement concerns violations of air pollution regulations, as it could be hard to establish the necessary *causal link* proving that a specific violation has caused specific significant pollution that could threaten to damage the coastline or the interests of the coastal State. Also, article 222 is not applicable, as the geographical scope of that provision does not encompass the EEZ.

One could therefore argue that a port State can take enforcement measures against such violations of air pollution regulations, for example of the 0.1% or 0.5% sulphur limits in MARPOL Annex VI, committed in the EEZ, despite any coastal State objections.

This conclusion might not present a problem if attention is given to the fact that article 220(5)–(6) 'merely' concern the coastal State's right to stop, detain

[59] See Tanaka, n 14, 296.

and prosecute a foreign ship that is sailing through the EEZ, thereby respecting a foreign ship's right to transit an EEZ in accordance with article 58 of UNCLOS. The same procedural safeguards are not relevant in article 218(2) situations, as the foreign ship has voluntarily called into a port in the port State pursuant to article 218(1), thereby subjecting itself to PSC, NMFT and article 218 jurisdiction.

Had the ship called into a port in a coastal State after the EEZ violation, that coastal State's right to take measures against such air pollution infringements pursuant to article 220(1) would not be in question. As affirmed in chapter 9, coastal States can – where the evidence so warrants – prosecute proven air pollution violations in the EEZ if a ship later (perhaps weeks or months after the violation) calls into a port in the coastal State, provided any limitation periods have not been breached, for example the three-year cut-off period found in article 228(2). A port State must therefore respect article 218(2) and article 220(1) pertaining to the coastal State's right to enforce all rules and regulation, including MARPOL Annex VI (or GHG regulations), in the coastal State's EEZ, if the ship, possibly at a later time, calls into port in the coastal State. Consequently, the port State can only proceed against these violations if so requested by the coastal State. Any legal proceedings already instituted by the port State must be suspended, and all evidence, case records and any economic security posted must be transferred to the coastal State pursuant to article 218(4).

B. Duty to Seek to Comply with Requests from other States: Article 218(3)

Article 218(3) requires port States – *as far as practicable* – to accommodate requests from another State to investigate possible discharge violations pursuant to article 218(1). The provision refers to accommodating requests from (coastal) States regarding violations taking place within, or inflicting damage to, their internal or territorial waters or EEZ.

It also explicitly demands that port States comply with requests from flag States to investigate such possible violations, 'irrespective of where the violation occurred'. Even though these last few words of the provision have an extremely broad geographical scope, the *investigation* mentioned would often involve conducting a PSC and submitting any other evidence (sniffer or CEMS measurements, etc) the port State can obtain and provide, *as far as practicable*.

The requirement under article 218(3) for port States to comply with a request to investigate by a flag State should be read in conjunction with article 217(5) (see chapter 8) pertaining to the requirement for all States to endeavour to respond to a flag State's request for assistance in clarifying the circumstances of a specific case. Those two provisions supplement each other, although the applicability of article 218(3) is limited to discharge violations.

C. Transferring all Evidence, Records and Economic Security: Article 218(4)

Article 218(4) (first sentence) requires a port State to provide a coastal State or flag State with the records of an investigation for determining a ship's violation occurring within the waters of, or potentially causing damage to, another (coastal) State.

The second sentence of article 218(4) specifies that the port State must suspend any legal proceedings instituted by it, if the coastal State where the violation occurred requests this. The port State must, pursuant to the third sentence of the paragraph, subsequently transfer any evidence, relevant information, case records and any financial security posted by the shipowner to the coastal State.

Finally, the fourth sentence of article 218(4) provides that when a port State has suspended its proceedings and has transmitted all records, evidence, etc, it is precluded from continuing those proceedings.

Article 218(4) (first sentence) sets itself apart from the rest of the sentence in the paragraph by referring to *flag States*, alongside coastal States, as parties entitled to receive any of the findings and evidence provided by the investigations carried out in accordance with article 218(2)–(3).

Article 218(4) (second to fourth sentence) grants exclusive rights for coastal States to suspend any legal proceedings initiated by port States and have all information *and economic security* transferred to them, thereby bringing the port State's enforcement of the case to an end. The flag State is not given such rights in article 218 to demand that a port State suspend its proceedings; that is found in article 228(1). This could be an expression of fact that the coastal State's *territorial jurisdiction*, pursuant to article 220(1) is stronger than the *extraterritorial jurisdiction* of port States (article 218) and of flag States (article 217).[60]

Article 228(1), which resolves overlapping flag and port State jurisdiction over (discharge) violations on the high seas, takes a more considered approach to which State has the final primary jurisdiction, compared to the no-nonsense style of article 218(4) (second and third sentences), which grants the coastal State full discretionary rights to decide whether the port State's initiated proceedings should be suspended or not.

VII. Article 218 Provides Grounds for Complete Enforcement of the Sulphur Limits

Port States have, in accordance with article 218(1), an exterritorial jurisdictional basis for taking action against violations of the emissions regulations

[60] These basic forms of jurisdiction are described in ch 6.

(MARPOL Annex VI) outside their own territory. Article 218(2)–(4) nevertheless set *explicit limits* on this enforcement in other (coastal) States' waters without consent.

On the other hand, article 218(2)–(3) also provide – in the view of this author – *implicit possibilities* for ensuring complete port State enforcement against all discharge violations, irrespective of where these take place, if consent is given by coastal States. This is of the upmost importance when addressing the effective enforcement of the sulphur limits under regulation 14 of MARPOL Annex VI.

As already affirmed in section III.E and section IV, the extraterritorial jurisdiction of article 218(1) allows port States to impose fines that remove (confiscate) all savings achieved by not complying with regulation 14.1.3 on the high seas. It also allows for any fine to include a dissuasive punitive element, which increases in the event of aggravating circumstances. If a foreign ship has violated regulation 14 of Annex VI by using non-compliant fuel throughout its *entire journey* before coming into port in the port State, it may have breached the 0.1% or 0.5% limit in Annex VI while sailing in the waters (EEZs, etc) of another (coastal) State, *and* the 0.5% limit whilst sailing on the high seas. The coastal State in question could, in accordance with the principles set out in article 218(2)–(3), give its consent to the port State's taking enforcement measures against those violations too.

The fines imposed by the port State could therefore involve confiscating not only the savings made from violating regulation 14.1.3 on the high seas, but also those savings achieved by violating the limits in another (coastal) State's waters, including the waters of the State where the ship last called into port if the ship was already non-compliant by the time it left the port. This conclusion applies irrespective of whether a 0.5% limit applies in the waters of the coastal State pursuant to regulation 14.1.3 of Annex VI, or whether it is a Sulphur Emission Control Area (SECA) zone with a 0.1% limit in accordance with regulation 14.4.

The required coastal State consent can be given on an *ad hoc* basis, but it will also be possible for all States – for example through the internationally coordinated PSC regimes of the different MoUs described in chapter 4 – to make *ex ante* multilateral agreements that include tacit consent from all participating States to allow all other participating States to enforce such violations on their behalf and vice versa. A port State that is party to such an agreement and/or MoU would automatically be able to institute legal proceedings for violations taking place in another party's (coastal State's) waters pursuant to article 218(1)–(3) without explicit consent.[61] The port State could, of course, choose to inform any affected

[61] If the ship has violated reg 14 while sailing in the waters of its flag State, that State may choose not to give its consent for port State enforcement for this part of the violation, given its dual role as a flag State and coastal State (see art 218(2)–(3). But that State cannot – in its sole capacity as flag State – bar the port State from initiating proceedings for violations taking place on the high seas (see art 218(1)) as this falls outside the legal basis of art 218(2)–(3). This question of competing jurisdiction between a port State and flag State for violations on the high seas must be resolved in accordance with art 228(1).

coastal State of its pending enforcement measures, as this would simultaneously fulfil the requirement in article 231 (see section IV.C).

If the ship continued to violate regulation 14 of Annex VI whilst sailing into the port of the port State, the port State can of course also take action against this part of the violation by virtue of its *coastal State* jurisdiction pursuant to article 220(1). It may be recalled from chapter 1 that one State can be viewed as a *port State* and as a *coastal State*, depending on where a violation has taken place.[62] A State's use of article 218(1) to bring measures against violations on the high seas does not bar it from also exercising jurisdiction over the same ship in accordance with article 220(1) for violations of Annex VI taking place within its territory, for example if the ship continues its infringement through the EEZ, territorial sea and in internal waters coming into port. This applies irrespective of that State's having a 0.5% sulphur limit or a 0.1% sulphur limit in its waters.

A. The Taking of End-to-end Enforcement Measures by Port States in Response to MARPOL Annex VI Violations

These conclusions allow for the taking of 'end-to-end' enforcement measures by port States in the face of violations of MARPOL Annex VI, regardless of where these violations occur. The jurisdictional legal basis for this is found in article 218(1) for the part of the violation taking place on the high seas, article 218(2)–(3) (pursuant to article 218(1)) for the part of the violation taking place within the waters of another (coastal) State(s) and article 220(1) regarding any part of the violation that took place in the (port) State's own waters as the ship voluntarily sailed into port. This provides the jurisdictional basis for port States to impose fines that remove (confiscate) all savings achieved, and which include a dissuasive punitive element, for the *entire* violation.

To use the example given in chapter 1, say that a large container vessel sails from China to Europe, enabling it (the shipowner) to save $750,000 by being continuously non-compliant with regulation 14 of MARPOL Annex VI. It is to be taken that this constant non-compliance can be proved in the European port State into which the ship next calls, for example by measurements made by an on-board CEMS or a sniffer-attached drone used in conjunction with PSC fuel sampling, etc.

The European port State can then impose a fine removing (confiscating) all the savings achieved over the entire trip if China, the coastal State where the violation first occurred (when the ship left the Chinese port and sailed out), and any other affected coastal States (States whose waters the ship may have passed through on its way in to the European port State) give their consent to this enforcement on their behalf pursuant to article 218(2)–(3).

[62] It can, of course, also be a *flag State*.

The European port State has jurisdiction over the part of the violation that takes place on the high seas in accordance with article 218(1); and if the ship continued its violation whilst sailing into port, the port State also has jurisdiction over that final part of the voyage in accordance with article 220(1) given its own rights as a coastal State. The European State can therefore impose a fine that removes all savings and which entails a dissuasive punitive element. A fine of a minimum $1 million would not be considered out of place in this example, where three-quarters of it ($750,000) represent confiscation of the savings achieved by the violation and the final one-quarter ($250,000) represents the dissuasive punitive element.

In the event of aggravating circumstances being present, for example repeated violations involving such high levels that they yield an economic gain (saving), the punitive element should increase accordingly to be *dissuasive*. Fines in the range of tens of millions of dollars would not be disproportionate in these cases.

Granted, the procedural logistics of such enforcement can seem tortuous for a port State if consent from all coastal States affected needs to be obtained on an *ad hoc* basis. But if *ex ante* agreements can be made between States giving tacit consent to such enforcement, presumably under the auspices of the different MoUs, it would be easier for a port State to expedite the enforcement procedure.[63] The MoUs could also make such agreements inter partes, for instance between the Tokyo, Paris and Indian MoUs, perhaps also involving the US PSC. Such a unified approach to enforcement would also align itself with the basic principle of *ne bis in idem* codified in article 228(2) (*in fine*), which requires other (coastal or port) States to respect proceedings already instituted.[64]

It is important to keep in mind, when reading this conclusion, that it presupposes that the port State, in accordance with article 228(1), has primary jurisdiction over the part of the violation that took place on the high seas, as this jurisdiction overlaps with the flag State's high seas jurisdiction pursuant to article 217. Article 228(1) is analysed in chapter 11.

VIII. Conclusion on Port State Enforcement under Article 218

To sum up, article 218(1) of UNCLOS confers an extraterritorial right for port States to investigate and – if the evidence so warrants – bring measures of

[63] One could of course argue that even if such *ex ante* consent was not provided by all relevant States, and the port State had to obtain *ad hoc* consent in each case, the benefits that may be gained from effective enforcement of reg 14 of MARPOL Annex VI on a global scale, ie preventing 137,000 early deaths and 7.6 million children from developing asthma, and also ensuring a level playing field within the shipping industry, would warrant the extra work it would require by the port State authorities to obtain such consent.

[64] Art 228(2) and (3) are discussed in ch 12.

enforcement against violations of international (IMO) discharge regulations occurring outside their own territory, for example on the high seas, provided the infringing ship voluntarily calls into a port in the port State.

The term 'discharge' in article 218(1) ('any discharge') is, by applying article 31(1) VCLT, interpreted to encompass *emissions* from ships, including emissions of SOx, NOx and CO_2. This conclusion is supported by how 'discharge' is defined in article 2(3)(a) of the MARPOL Convention, applicable to all of the Annexes pursuant to article 1(2), and how it is already used in regulation 12.7.3 of MARPOL Annex VI, referring to the discharge of ODSs into the atmosphere.

States that are not party to UNCLOS can presumably also invoke the extra-territorial principles of article 218(1) as the provision represents customary international law. These non-party States must, however, also respect the principles of article 218(2)–(4) and article 228(1) pertaining to a port State's overlapping jurisdiction with other (coastal and flag) States.

Port States can – by virtue of the NMFT principle codified in regulation 10.3 of MARPOL Annex VI referring to article 5(4) of the MARPOL Convention – take measures against such violations committed by all ships, regardless of their flag.

If, after a violation, a ship calls into a port in a port State that does not proceed against this violation, other port States (into which the ship subsequently calls) can institute measures against such previous violations, provided the evidence so warrants. The principle of *ne bis in idem* bars a port State from proceeding against a violation once measures have been effectively taken by a coastal State, flag State or another port State.

Regulation 11.6 of MARPOL Annex VI allows port States to take enforcement measures pursuant to article 218(1) of UNCLOS during a PSC, provided all the procedural safeguards in section 7 of part XII of the Convention are met. This includes ensuring that IMO and flag State representatives can oversee any legal proceedings (article 223) and that only monetary penalties (fines) are imposed for violations on the high seas (article 230(1)). Also, the flag State must promptly be informed by the port State of any investigation or proceedings initiated in accordance with article 218(1) (article 231).

Article 218(2)–(4) explicitly obliges the port State to respect the territorial jurisdiction of a coastal State (article 220) pertaining to violations taking place within its waters. However, article 218(2)–(3) also implicitly provides a legal basis for (coastal) States to give consent, perhaps tacit *ex ante* consent within the different MoUs, allowing other (port) States to act in response a violation on their behalf. These port States can also take action against violations in their own waters, for example during the last part of the voyage before coming into port, as a (coastal) State, in accordance with article 220(1).

Article 218, applied in conjunction with article 220(1), provides port States with the jurisdiction to take action against a violation of regulation 14 of MARPOL Annex VI from beginning to end, irrespective of where that violation may occur. This extraterritorial jurisdiction under article 218(1) also provides port States with a legal basis for imposing a fine that removes (confiscates) all savings gained from

the entire trip, as well as including a dissuasive punitive element, which increases in the event of aggravating circumstances.

Port State enforcement on the high seas pursuant to article 218(1) must be done in accordance with article 228(1) to determine which State has primary jurisdiction, as the port State's jurisdiction overlaps with the flag State's jurisdiction (see article 217).

The same principles could apply to the enforcement of future IMO regulations on GHG, depending on which legislative measures are adopted for achieving the necessary GHG reductions. This could involve the use of zero-carbon or fossil-free fuels, speed reductions, etc, as the term 'discharge' in article 218(1) does not apply to the enforcement of all proposed GHG legislative measures.[65]

[65] See ch 15.

11

Resolving Overlapping Jurisdiction: Article 228(1)

As noted many times in previous chapters, article 228(1) of UNCLOS[1] tackles the problem of overlapping[2] *extraterritorial jurisdiction* between a flag State, according to article 217, and a port State, according to article 218(1), for discharge violations on the high seas, which includes violations of regulation 14.1.3 of MARPOL Annex VI.[3] It also resolves the matter of overlapping jurisdiction between a flag State (article 217) and a coastal State pursuant to article 220 for violations occurring within the territory of the latter.[4] The question of coastal State jurisdiction overlapping with port State jurisdiction is, as discussed in chapter 10, resolved in accordance with article 218(2)–(4).[5]

Although article 228 is a provision found within section 7 of part XII of UNCLOS on procedural *safeguards* – while articles 217, 218 and 220 appear in section 6 on *enforcement* – article 228(1) calls for thorough analysis in a separate chapter, as this provision can, alongside article 218(1), be regarded as one of the few codified exceptions to the flag State principle referred to in article 92 of the Convention. This is also emphasised by the explicit reference in article 217(4) to articles 218, 220 and 228 pertaining to flag States' having to respect port State and

[1] United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3.

[2] While some use the terms *competing jurisdictions* or *concurrent jurisdictions*, this book refers to *overlapping jurisdictions*.

[3] International Convention for the Prevention of Pollution from Ships (adopted on 11 February 1973, as modified by the Protocol of 17 February 1978, entered into force 2 October 1983) 1340 UNTS 61 (MARPOL), Annex VI, IMO Publication: IMO-520E. It may be recalled from chs 7 and 8 that any reference in this book to flag State enforcement of MARPOL Annex VI according to art 217 entails an implicit reference to art 222.

[4] It may be recalled from chs 7 and 9 that any reference in this book to coastal State enforcement of MARPOL Annex VI in accordance with art 220(1) entails an implicit reference to art 222 pertaining to enforcement in internal and territorial waters. Coastal State enforcement of Annex VI, and other air pollution regulations, in the EEZ is solely based on art 220, as the geographical scope of art 222 does not encompass the EEZ.

[5] If a violation occurs within the waters of the flag State then this State has sole jurisdiction over the violation.

coastal State jurisdictions, and to respect how article 228 resolves the flag State's overlapping jurisdiction with these.

It could be argued that article 218(1) provides port States with extraterritorial jurisdiction to take proceedings and other measures against discharge violations on the high seas (*enforce*), and that article 228(1) curtails that jurisdiction by limiting the right to complete proceedings (*adjucate*) in certain circumstances.[6] The right for port States to enforce applicable international rules and standards includes the right to investigate, detain, require financial security and *institute* legal proceedings. However, the right for port States to *complete* (execute) the legal proceedings and claim the posted financial security to cover any fine (irrespective of any protests made by the flag State), is found in article 228(1). A port State cannot execute its enforcement measures unless the requirements in article 228(1) are fulfilled.

Article 228(2), which sets out a three-year limitation period, and article 228(3), pertaining to the flag State's right to always enforce violations, are studied in chapter 12 with the other procedural safeguards in section 7 of UNCLOS.

I. The Wording and Overall Content of Article 228(1)

Article 228(1) is a very long and detailed paragraph. To aid comprehension, the four sentences in the paragraph are quoted separately below, as follows:

- 'Proceedings to impose penalties in respect of any violation of applicable laws and regulations or international rules and standards relating to the prevention, reduction and control of pollution from vessels committed by a foreign vessel beyond the territorial sea of the State instituting proceedings shall be suspended upon the taking of proceedings to impose penalties in respect of corresponding charges by the flag State within six months of the date on which proceedings were first instituted, unless those proceedings relate to a case of major damage to the coastal State or the flag State in question has repeatedly disregarded its obligation to enforce effectively the applicable international rules and standards in respect of violations committed by its vessels.'
- 'The flag State shall in due course make available to the State previously instituting proceedings a full dossier of the case and the records of the proceedings, whenever the flag State has requested the suspension of proceedings in accordance with this article.'
- 'When proceedings instituted by the flag State have been brought to a conclusion, the suspended proceedings shall be terminated.'

[6] The right for a State to enforce and adjudicate on (and prescribe) legislation is discussed in ch 6.

- 'Upon payment of costs incurred in respect of such proceedings, any bond posted or other financial security provided in connection with the suspended proceedings shall be released by the coastal State.'

The first sentence stipulates the *main rule* and the *two exceptions* regarding how the overlapping jurisdiction between a flag State and either a coastal State or a port State should be resolved.

The second sentence relates to the application of the *main rule* by setting criteria that must be met by the flag State.

The third and fourth sentences lay down procedural requirements that must be fulfilled if the flag State invokes the main rule.

Sections II and III of this chapter will focus on the scope of article 228(1) and the main rule in the first sentence, along with the criteria for applying that rule (in the second sentence) and the procedural follow-up requirements (in the third and fourth sentences). Section IV will focus on the two exceptions provided for in the first sentence, as from the onset they – if applicable – will bar the flag State from invoking the main rule. Special attention will be given to the second exception in the first sentence as it specifically relates to the overlapping jurisdiction on the high seas between a flag State and port State, also covering enforcement of MARPOL Annex VI and other International Maritime Organization (IMO) air pollution regulations.

II. The Scope of Article 228(1)

The first part of the first sentence of article 228(1) sets the parameters for the scope and application of the provision, referring to:

> Proceedings to impose penalties in respect of any violation of applicable laws and regulations or international rules and standards relating to the prevention, reduction and control of pollution from vessels committed by a foreign vessel beyond the territorial sea of the State instituting proceedings …

The initial reference to imposing penalties narrows the extent of the regulation to cover the aforementioned execution of enforcement by a port State or coastal State, as it does not hinder initial enforcement by these States by investigation, detention,[7] the requiring of financial security and the bringing of proceedings pursuant to articles 218 or 220.

The term 'any violation' covers all forms of violations, including discharge.

The 'applicable laws and regulations or international rules and standards relating to the prevention, reduction and control of pollution from vessels'

[7] The legality of a detention, including the proportionality of requested financial security, can be brought before the International Court of Justice (ICJ), International Tribunal of the Law of the Sea (ITLOS), etc in accordance with the expedited procedure described in art 292. See ch 12.

encompass all national and international regulations for the protection of the marine environment. The broad reference to 'international rules' covers all environmental IMO regulations and conventions, including, but not limited to, the London Convention,[8] the Anti-fouling Convention,[9] the Hong Kong Convention,[10] the Nairobi Convention[11] and – of course – the MARPOL Convention and its Annexes I–VI. It obviously also encompasses future IMO regulations on greenhouse gases (GHGs).

National laws could be coastal State laws adopted in accordance with articles 211, 212 or 234 of UNCLOS. No State can enforce national laws that regulate foreign ships on the high seas, as the high seas are considered *res communis*, as described in chapter 3.[12]

The words 'committed by a foreign vessel beyond the territorial sea of the State instituting proceedings' sets the geographical scope of the provision by limiting its application to violations taking place outside a (coastal) State's territorial sea, for instance in an EEZ or on the high seas. Article 228(1) can therefore be applied to determine which State has primary jurisdiction when a flag State's jurisdiction overlaps with a port State's high seas jurisdiction or with a coastal State's EEZ jurisdiction.

The reverse conclusion from this provides the first important result of the analysis of article 228(1): If a foreign vessel commits a violation in a coastal State's *internal waters* or in the *territorial sea*, that coastal State has *primary jurisdiction* over this violation in accordance with article 220(1)–(2) (and article 222 regarding air pollution), as compared with the flag State's jurisdiction pursuant to article 217, as it falls outside the scope of article 228(1). This conclusion is in complete alignment with article 2(1) of UNCLOS, which provides that coastal States enjoy sovereignty over these areas. This means that a coastal State always has full jurisdiction over violations of any national or international sulphur rules that take place within internal or territorial waters, with the exceptions mentioned in chapter 3 pertaining to innocent and transit passage.

[8] Convention for the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (adopted 13 November 1972, entered into force 30 August 1975) 1046 UNTS 120 ('the London Convention').

[9] International Convention on the Control of Harmful Anti-fouling Systems on Ships (adopted 5 October 2001, entered into force 17 September 2008) ('the Anti-fouling Convention' or 'AFS Convention').

[10] The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (adopted 15 May 2009, not yet entered into force) ('the Hong Kong Convention').

[11] The Nairobi International Convention on the Removal of Wrecks (adopted 18 May 2007, entered into force 14 April 2015) ('the Nairobi Convention').

[12] Flag State jurisdiction to adopt national laws that apply to ships flying its flag should not be regarded as an exception to the *res communis* principle, as flag State jurisdiction fully governs ships under the State's flag sailing on the high seas and does not confer a right for the flag State to adopt and enforce national legislation over certain areas of the high seas and the foreign ships sailing thereon.

III. The Main Rule in Article 228(1)

The main rule in article 228(1) is found in the next part of the first sentence of the paragraph, which establishes that any proceedings initiated by a coastal or port State

> shall be suspended upon the taking of proceedings to impose penalties in respect of corresponding charges by the flag State within six months of the date on which proceedings were first instituted …

In other words, the main rule in article 228(1) provides that such proceedings instituted by a coastal State for an EEZ violation or by a port State for a high seas (discharge) violation shall be suspended if the flag State makes such a request, provided it fulfils the two initial requirements for doing so:

(a) the flag state must make such a request for suspension within *six months* of the instituting of the earlier proceedings brought by another State; and
(b) the flag State must brings *corresponding charges* against the ship(owner).[13]

A. The Flag State Must Act within Six Months

The six-month deadline in article 228(1) should – to some extent – be read in conjunction with article 231, which, it will be recalled (see chapters 9 and 10), requires coastal States and port States to promptly inform the flag State of any investigations instituted or procedural steps taken. Yet there is not complete overlap between the applicability of the two articles. The requirement in article 231 to notify the flag State applies from the time *any measure* was taken by a coastal State or port State, whereas the six-month deadline in article 228(1) begins from when the earlier *proceedings* were instituted.[14]

This could, in principle, mean that two separate notifications should be sent to the flag State from the enforcing coastal State or port State: one in accordance with article 231, when an enforcement measure is initiated; and one when the proceedings are instituted, to start the six-month deadline under article 228(1). However, the term 'proceedings' in article 228(1) should, in the view of this author, be understood to cover more than just proceedings in a court or the proceedings linked to imposing an administrative fine, as the six-month deadline would seem strangely long, considering how quickly such court proceedings can be concluded in most countries. 'Proceedings' must therefore be presumed to cover more than 'just' the

[13] Y Tanaka, *The International Law of the Sea*, 2nd edn (Cambridge University Press, 2015) 295.
[14] The exception in art 231 (second sentence), that notification is not required until legal proceedings are instituted pertaining to violations occurring in internal or territorial waters, falls outside the geographical scope of art 228(1).

days in court when the case is presented and decided; it must also encompass the preceding investigation, including the collection of evidence and establishing the case.

The case, including the investigation, is often handled by the maritime (Port State Control (PSC)) or environmental authorities before being transferred to the police and/or public prosecutor, unless the authorities themselves have the right to impose administrative fines. As such investigative measures often begin at the same time that other enforcement *measures* are taken, such as detention and demands for economic security (bail), etc during PSCs, the notification from the coastal or port State to the flag State under article 231 would encompass all such procedural enforcement actions, which would also mark the beginning of the six-month deadline for the flag State to act pursuant to article 228(1).

Such an article 231 notification should explicitly refer to the possibility of legal proceedings being instituted and the penalties that may result, given the safeguarding nature of articles 228 and 231. This is particularly the case with regard to a port State's enforcement on the high seas in accordance with article 218(1), as this is an exception to the established flag State principle.[15]

Articles 228(1) and article 231 might also be read in combination with article 223, another section 7 safeguarding article. Article 223 requires coastal and flag States to 'facilitate the attendance at such proceedings [instituted under Part XII] of official representatives of the competent international organization [and] the flag State'. One could argue that in order to facilitate the attendance of representatives from the flag State (and the IMO), information on the proceedings must be provided.

The coastal State or port State should thus always strive to provide the flag State with clear and explicit notification of any measures instituted, so that it can specifically identify and *prove* when the six-month period began, allowing the notifying State to conclude the proceedings, such as by imposing a fine and claiming any financial security posted, after this deadline has expired.

i. The Six-month Deadline Used in the Context of Enforcement of MARPOL Annex VI

The reverse conclusion to be drawn from article 228(1) is that if a flag State *does not* require a coastal or port State to suspend its proceedings within the six months after these began, the flag State automatically forfeits its right to assume primary jurisdiction over the violation. If a flag State's request for

[15] It should be noted that these provisions of UNCLOS have a fixed focus on the interactions between States. Separate notifications of any enforcement measures commenced or legal proceedings instituted by a coastal or port State would inevitably also be forwarded to the shipowner, who may subsequently contact its flag State directly to obtain its assistance. Such 'second-hand' flag State notification cannot by itself replace an official article 231 notification.

suspension, or other protest, is submitted *after* the six-month deadline has expired, the coastal State or port State can ignore such request/protest, complete the proceedings and execute enforcement.

This could become a focal point for ensuring effective enforcement of the 0.5% global sulphur limit pursuant to regulation 14.1.3 of Annex VI, as *open registry flag States* can be divided into two categories in this regard: those flag States that *actively* protect their flag and the ships flying it; and those that *passively* offer an open registry by essentially not doing anything.

It must be presumed that an *active* open registry flag State will respond to an article 231 notification within six months. *A passive* open registry flag *State* may, however, be unable (due to a limited maritime administration, etc) or unwilling (for political, economic or other reasons) to react to such notifications within six months of when proceedings were instituted.

This could prove to be the first important piece of the puzzle that falls into place to ensure that coastal States and port States can undertake enforcement of regulation 14.1.3 of Annex VI in EEZs and on the high seas. For example, if a (passive) flag State, for reasons unknown, is *unable or unwilling*[16] to respond to a port State's notification of any proceedings instituted, it would allow the port State to take action against the violation of the 0.5% limit, resulting in *end-to-end enforcement*, as described in chapter 10.[17]

B. Corresponding Charges Must be Brought by the Flag State

The second requirement that flag States must meet before being able to invoke the main rule of article 228(1) and suspend proceedings instituted by a coastal State or port State, is to take over the proceedings with the intent to 'impose penalties in respect of corresponding charges by the flag State'.

[16] This phrase, used in this context for describing flag State involvement, is borrowed from the '*unable or unwilling doctrine*' relating to the discussions within international law for justifying a State's military actions – see art 51 of the UN Charter (Charter of the United Nations and Statute of the International Court of Justice (adopted 26 June 1945, entered into force 24 October 1945) 1 UNTS XVI) on self-defence – against non-State actors (terrorist organisations) located within a foreign State where the government is *unwilling or unable* to prevent the use of its territory for such non-lawful activities. See JD Olin, 'The Unwilling and Unable Doctrine Comes to Life', quoting a letter by Samantha Powers to the UN, available at http://opiniojuris.org/2014/09/23/unwilling-unable-doctrine-comes-life/. This author does not intend in any way to belittle or dilute this important concept and how it is normally applied.

[17] The term 'end-to-end enforcement' covers a port State's measures of enforcement against the violation of reg 14 of Annex VI on the high seas and in foreign and own waters pursuant to art 218(1) and (2)–(3) and art 220(1) (and art 222). The fine imposed by the port State can confiscate all savings and include a punitive element.

This precondition establishes that the flag State does not have carte blanche to suspend proceedings within six months; rather, the flag State must prove to the coastal State or port State that it will effectively proceed against the violation committed by a ship flying its flag.

Given that the scope and purpose of article 228(1) is to ensure enforcement of the IMO's environmental legislation, the term 'corresponding charges' must be interpreted in the narrowest of ways, leaving little or no leeway for flag States to avoid enforcing a violation effectively. This would mean, for example, that if a port State has instituted proceedings against a ship for violating regulation 14.1.3 of MARPOL Annex VI on the high seas, the flag State must bring an identical charge covering the same infringement

One might even go so far as to claim that if the port State, meaning, for example, the maritime authority or public prosecutor, intends to impose a fine of a certain amount and this amount is based on recognised principles for calculating such fines, the duty to 'impose penalties in respect of corresponding charges' would require the flag State to impose a fine of at least the same amount. It must be emphasised that such a demand would not mean that all States must wholly align their sanctions for penalising violations of MARPOL Annex VI; it merely suggests that such sanctions must meet some minimum principles, such as those set out in article 18 of the EU Sulphur Directive,[18] to be considered *effective* and to avoid circumvention of the regulations.[19]

It will be recalled from chapter 8 that this corresponds with the general obligation under article 217(1) for flag States to enforce *effectively*, and that a flag State must ensure that its national laws will result in such effective enforcement and dissuasive penalties in accordance with article 217(8). The obligation for flag States to bring corresponding charges that ensure effective enforcement following a violation is therefore to be found in article 228(1) *and* in article 217(1) (and article 222 pertaining to Annex VI violations).

As the requirement for corresponding charges in article 228(1) is a precondition to the suspension of a coastal State's or port State's proceedings, it must imply the right for those States to deny a flag State's request for suspension if it does not assure (guarantee) them of its intention to bring such corresponding charges, which includes effective sanctions. Whether the flag State actually lives up to such assurances can subsequently be confirmed by the coastal State or port State in accordance with article 228(1) (second sentence).

[18] Directive (EU) 2016/802 of the European Parliament and of the Council of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels [2016] OJ L132/58.

[19] As noted in previous chapters, fines for infringements of the sulphur limit could be calculated based on the parameters set out in art 18 of the EU Sulphur Directive, requiring that all savings are removed (confiscated) and a dissuasive punitive element, which increases in the event of aggravating circumstances, imposed.

C. The Procedural Requirements after Invoking the Main Rule

If a flag State can meet the conditions for invoking the main rule in article 228(1), that is, acting within six months and instituting its own proceedings on corresponding charges, the coastal State or port State in question is required to suspend its own proceedings. The operative word in this context is 'suspend', implying that the coastal State or port State proceedings are merely 'put on hold' when a flag State invokes the main rule. This assumption is confirmed by the words of the *third sentence* of article 228(1): 'When proceedings instituted by the flag State have been brought to a conclusion, the suspended proceedings shall be terminated.'

Before the coastal State or port State is required to terminate its proceedings – and thereby also required to release any financial security posted pursuant to the *fourth sentence* of the paragraph – the flag State must meet the explicit and implicit demands of the *second sentence* of article 228(1):

> The flag State shall in due course make available to the State previously instituting proceedings a full dossier of the case and the records of the proceedings, whenever the flag State has requested the suspension of proceedings in accordance with this article.

This second sentence thereby extends the list of requirements to which the flag State must adhere if it wishes to assert primary jurisdiction over a violation committed in an EEZ or on the high seas, by establishing an *explicit* post-suspension obligation to provide the coastal or port State with a full dossier and the records of the proceedings.

This author sees this obligation as including an *implicit* right for the coastal or port State to review these case records and dossiers, and to evaluate whether the flag State has actually fulfilled the requirement to bring *corresponding charges* pursuant to article 228(1) that must result in *effective enforcement* in accordance with article 217(1). If the coastal State or port State concludes that the flag State did not bring corresponding charges resulting in effective enforcement, that coastal or port State – following the reverse conclusion drawn from the third sentence of article 228(1) – is entitled to *resume* its legal proceedings, as these were merely *suspended* until this point. This includes claiming any financial security posted by the shipowner, as this has not yet been released, following the reverse conclusion drawn from the fourth sentence.

If a flag State does not fulfil the requirement in the second sentence of article 228(1) by providing a full dossier of the case and the records of the proceedings', it must be taken that corresponding charges have not been brought, which also allows the coastal State or port State to recommence its suspended proceedings. Such a failure to act by the flag State would in many ways equate to a flag State's lack of compliance with article 217(6) and (7) pertaining to providing information to an informing coastal State or port State (and the IMO and all States).

Unlike the reporting obligation in article 217(7), the reporting obligation in article 228(1) does not require the flag State to inform the IMO or other States of its effective and corresponding enforcement. The flag State can therefore forward the information directly to the port State without using the GISIS module.[20] However, the *port State* could log any non-compliance by the flag State in GISIS, for example if the flag State does not notify its enforcement or if it has brought non-corresponding charges, as this is relevant to the port State's subsequently resuming the, up until that point, suspended proceedings.

A flag State cannot avoid providing such mandatory information on corresponding charges by referring to any national law barring this (see article 27 of the Vienna Convention on the Law of Treaties (VCLT)[21]).

D. Conclusion on Flag States' Utililisation of the Main Rule

A flag State can, pursuant to article 228(1), assume primary jurisdiction over a violation of laws or regulations for the protection of the marine environment committed by a ship under its flag while it was sailing in a foreign coastal State's EEZ or on the high seas. A coastal State's jurisdiction over violations occurring in internal or territorial waters is not affected, following a reverse conclusion drawn from article 228(1).

A coastal State or port State has jurisdiction to use its powers of enforcement, such as by investigating, detaining and indicting a foreign ship(owner) pursuant to article 220 and article 218 of UNCLOS, provided it informs the flag State thereof in accordance with article 231.

Article 228(1) allow flag States to stop any resulting proceedings by a coastal State or port State to impose penalties, before a fine is imposed and any financial security posted is claimed.

This assertion of primary jurisdiction requires the flag State to fulfil three obligations (two initial and one subsequent). The two initial obligations require the flag State:

(a) to request the coastal State or port State to suspend its proceedings within six months of their first being instituted; and
(b) to institute its own legal proceedings in respect of *corresponding charges*, which include effective enforcement (fines) (first sentence).

[20] GISIS (the Global Integrated Shipping Information System) is an IMO-administered online reporting database, where the Member States can report different information relating to IMO regulations, including MARPOL Annex VI. See further ch 4.

[21] Vienna Convention on the Law of Treaties 1969 (adopted 22 May 1969, entered into force 27 January 1980) 1155 UNTS 331 (VCLT).

The third and subsequent obligation of the flag State is:

(c) to present a full dossier and records from the proceedings to the coastal State or port State, thereby allowing that State to evaluate whether the flag State did institute proceedings in respect of corresponding charges (second sentence).

If the flag State fulfils these three obligations then the coastal State or port State is required to fully *terminate* the, up until this point, suspended proceedings and release any financial security posted by the shipowner (third and fourth sentences). On the other hand, if either of the two initial obligations are not met by the flag State, the coastal State or port State has the right to *refuse* the flag State's request for suspension.

If the flag State does not meet the third obligation, proving that effective corresponding charges were brought, the coastal or port State can *resume* its suspended legal proceedings, imposing a fine and claiming (invoke) any security posted.

It is important to note that a coastal State or port State also can *refuse* a request for suspension from the onset even though a flag State fulfils all three requirements for invoking the main rule, provided one of the *two exceptions in* article 228(1) applies (see further section IV of this chapter).

i. Conclusion on Utilising the Main Rule for Enforcement of Annex VI

In terms of enforcing the sulphur rules in MARPOL Annex VI, this means that some open registry flag States that have a somewhat passive approach to their duties, being either unable or unwilling to fulfil them, would lose their primary jurisdiction by not acting within six months.

Even if such a timely protest is issued by the flag State, it must bring corresponding charges that ensure the imposition of a penalty that meets the criteria set out in article 18 of the EU Sulphur Directive, by removing (confiscating) all savings achieved by the infringement and also imposing a dissuasive punitive element. This would also meet the requirement in article 217(1) pertaining to effective enforcement.

If a flag State does not assure the coastal State or port State of its intention to bring corresponding charges, the request for suspension can be denied. If such assurance is provided, the result of the enforcement must be notified to the coastal State or port State, which can then satisfy itself that corresponding charges were brought and that they resulted in effective enforcement.

If such information is not provided, or it shows ineffective enforcement, the coastal State or port State can lift the suspension and resume its proceedings.

A port State can, if any of these circumstances (missing the six-month deadline, failing to bring corresponding charges, etc) leads to the flag State's not being able to invoke the main rule, assert full extraterritorial jurisdiction over the entire violation of MARPOL Annex VI from end to end, pursuant to article 218(1) and (2)–(3) and article 220(1), as described in chapter 10.

The port State can on these grounds impose a fine that strips all savings from the whole violation, and which includes a dissuasive punitive element that can increase if, for example, a shipowner has violated regulation 14 of Annex VI on other occasions.

Even if a flag State meets all requirements for invoking the main rule, the port State can deny such a request for primary jurisdiction if the *second exception* codified in article 228(1) applies (see section IV.B).

IV. The Two Exceptions in Article 228(1)

While the *first clause* of the first sentence of article 228(1) confirms that a flag State is permitted to invoke the main rule – provided all the requirements for doing so are met – the *second clause* of the first sentence limits the main rule by stating that the flag State is able to utilise the main rule, and thereby suspend any proceedings instituted by a coastal or port State,

> unless those proceedings relate to a case of major damage to the coastal State or the flag State in question has repeatedly disregarded its obligation to enforce effectively the applicable international rules and standards in respect of violations committed by its vessels.

Thus, article 228(1) contains two *exceptions* to the main rule:

(a) The *first exception* relates to the violations' having caused 'major damage' to a coastal State.
(b) The *second exception* pertains to a flag State's repeatedly having 'disregarded its obligation to enforce effectively'.

Before taking a closer look at these exceptions, it should be noted that, for the purposes of saving space and simplification, this book will refer to the first exception as 'the first exception in article 228(1)' or simply 'the first exception'. The second exception will be referred to as 'the second exception in article 228(1)' or simply 'the second exception'.

A. Major Damage to Coastal States: The First Exception in Article 228(1)

The first exception in article 228(1) is quite simple and straightforward in its wording and application, as it covers cases of 'major damage' to a coastal State. The geographical scope of the exception covers violations occurring in a coastal State's EEZ, recalling that violations taking place in internal and territorial waters invariably fall under the primary jurisdiction of the coastal State.

Unlike the second exception (see section IV.B), this first exception does not refer to its solely covering international rules and regulations; instead, the

reference in the first clause of article 28(1) is to the 'applicable laws and regulations or international rules and standards'. This widens the regulatory scope of the first exception to encompass violations of international rules and of nationally adopted EEZ laws pursuant to article 211(6) or article 234, provided these violations result in *major damage*.

Such national and international rules for environmental protection in the EEZ, including air pollution regulations, are enforceable in accordance with article 220(1), provided the ship voluntarily goes into port in the coastal State. They are also enforceable pursuant to article 220(5)–(6) pertaining to non-air pollution discharge regulations.

If such an EEZ violation results in major damage to the coastal State, the first exception allows the coastal State to deny a request from a flag State for suspension of the coastal State's proceedings even though the requirements for applying the main rule are met by the flag State.[22]

Special extraterritorial rights for coastal States to protect themselves from major damage in the EEZ are also found in article 220(6). Yet the first exception in article 228(1) sets itself apart from article 220(6), as it is not limited to discharges and does not include violations that merely *threaten* to cause major damage. The first exception only covers violations that have actually resulted in major damage to the coastal State.

It is at the discretion of the coastal State whether damage sustained by a violation can be deemed major damage that will allow the coastal State to refuse a flag State's request for suspension. Exercising this right to determine if this first exception applies, is not without limitations for the coastal State. Such decisions are taken in light of the 'liability of States' in article 232 of UNCLOS, under which the coastal State becomes liable for any injuries to or loss for a shipowner attributable to its enforcement. The coastal State may also incur State liability towards the flag State pursuant to article 235 after refusing suspension on unlawful grounds.

However, the right to deny a flag State's request for suspension, by claiming that the first exception applies, is therefore not without its limitations and consequences. Especially, as a flag State can bring a case before ITLOS or the ICJ, etc,[23] claiming that the coastal State's assessment of the violation as causing major damage is incorrect.

Regarding enforcement of MARPOL Annex VI, and air pollution regulations in general, the discussion in chapter 9 also applies here. A mere *causal link* between a violation of air pollution regulations in an EEZ and the 'damage' it inflicts on the coastal State is, in the view of this author, too weak to establish that the violation

[22] Tanaka, n 13, 295.

[23] See ch 12 for proceedings being brought before ITLOS or the ICJ, etc in accordance with pt XV of UNCLOS.

of regulation 14 of MARPOL Annex VI has caused *major damage* to the coastal State.[24]

A coastal State therefore cannot refuse a request by a flag State for suspension by invoking the first exception in article 228(1) for a violation of the Annex VI sulphur limits in an EEZ. The same applies to enforcement of other air pollution regulations, including GHG regulations, in the EEZ.[25]

This could seem like a loophole for ensuring global compliance in EEZs with the 0.1% and 0.5% sulphur limits in MARPOL Annex VI. But, before so concluding, certain other points should be kept in mind:

(a) The flag State's request for suspension must meet all the preconditions for invoking the main rule in article 228(1), including bringing corresponding charges within six months and subsequently presenting documentation for this.
(b) Even though the *first exception* in article 228(1) might not allow a coastal State to deny a flag State's request for suspension if it concerns non-major damage, the *second exception* in the provision might, as it applies to coastal State proceedings for EEZ violations and port State proceedings for high seas (discharge) violations.

The second exception in article 228(1) is therefore deemed the more interesting – and potentially more important – when trying to establish how regulation 14 of MARPOL Annex VI is best enforced on a global scale, especially when trying to minimise the impact of *active open registry States*' offering *flags of convenience*.

B. Repeatedly Disregarding Obligations to Enforce Effectively: The Second Exception in Article 228(1)

It ought to be underlined initially that the word 'or' between the first and second exceptions in article 228(1) clearly indicates that these are two separate exceptions. While the first exception refers to major damage to a coastal State, the focus of the second is on countering a flag State's lack of enforcement in general by concentrating on past performance. This opens up the geographical scope of the second exception to encompass all legal proceedings covered by article 228(1), including proceedings instituted by coastal States according to article 220(1) for EEZ

[24] The same argument can be made for violations of nationally adopted discharge limits from open loop scrubbers in the EEZ under art 211(6) or art 234, as a violation thereof does not result in *major damage* to a coastal State.

[25] As was also stated in ch 9. An exception to this conclusion might be if a ship, in violation of IMO rules, were to release an extremely toxic pollutant (gas, etc) into the atmosphere, which can travel from the EEZ over land and directly harm (poison) humans. This would create the necessary link for invoking the first exception in art 228(1).

violations and those instituted by port States pursuant to article 218(1) for high seas discharge violations.[26]

The second exception in article 228(1) allows a coastal State or port State to refuse a flag State's request for suspension, even though all the preconditions for invoking the main rule have been met, if

> the flag State in question has repeatedly disregarded its obligation to enforce effectively the applicable international rules and standards in respect of violations committed by its vessels.

The wording of the second exception in article 228(1) thus establishes *three conditions* that must be fulfilled before a coastal State or port State can apply this exception:

(a) The flag State must repeatedly have disregarded its obligations.
(b) These obligations must relate to effective enforcement.
(c) The disregarded obligations must be found within international rules and standards.

To analyse these requirements in the most logical way, the order in which they are listed above will be reversed.

i. Obligations Found within International Rules and Standards

The second exception, unlike the first, only concerns itself with a flag State's disregard of *international rules and standards*, and therefore does not cover nationally adopted rules pursuant to articles 211, 212 or 234.

The international rules that *are* covered by the second exception are the 'usual suspects' in the regulatory library of the IMO, such as the BWM Convention,[27] the London Convention, the Anti-Fouling Convention and – of course – the MARPOL Convention, including its Annexes.

The reduced regulatory scope of the second exception, compared to that of the first exception, which covers national adopted rules, probably relates to the wider geographical scope of the second exception, as it also covers violations on the high seas.

ii. Flag State Obligations Relating to Effective Enforcement

The reference in the second exception to the flag State's having 'disregarded its obligation to enforce effectively' must be studied more closely to determine the obligations to which this refers.

[26] Tanaka, n 13, 297.

[27] The International Convention for the control and management of ship's ballast water and sediments 2004 (adopted 13 February 2004, entered into force 8 September 2017) ('the BWM Convention').

The reference to 'its obligation to enforce' is, in the view of this author, not a reference to one specific rule (article) in UNCLOS, although written in the singular form, but a reference to all part XII provisions that confer an obligation on flag States to enforce the applicable rules and standards.[28] The reference to 'its obligation' should therefore be recognised as a reference to all the provisions in part XII that create obligations for flag States, such as articles 216, 217, 222 and 223.

The specific mentioning of 'its obligation' is therefore linked to the repeated failure of the flag State in question to meet the obligation for effective enforcement under a particular article, for example where a flag State repeatedly fails to effectively enforce international rules on dumping (the London Convention) in accordance with article 216 of UNCLOS.

The requirement under article 223 for all States – including flag States – to allow representatives from an injured coastal State and the IMO to attend any legal proceedings brought for part XII violations is also an obligation encompassed by the second exception in article 228(1).

As this book focuses on enforcement on international rules on air pollution, such as MARPOL Annex VI and future GHG regulations, the flag State obligations in article 222 and article 217 require further examination.

Initially, it should be recalled (see chapters 7 and 8) that although article 222 provides a *lex specialis* legal obligation for flag States to take enforcement measures against violations of air pollution regulations, this by itself provides no specific definition of the extent of the enforcement obligation or what is required to fulfil it. Article 222 should therefore be used in conjunction with article 217 covering the general requirements with which flag States must always comply when enforcing all forms of IMO regulations for the protection of the marine environment, including regulation 14 of MARPOL Annex VI.

The specific details of article 217(1)–(8) are set out in greater depth in chapter 8, but to target and determine how article 217 relates to the application of the second exception in article 228(1), the relevant paragraphs of article 217, and their relevance to enforcing MARPOL Annex VI, will be examined below.

a. Flag State Obligations in Article 217 That Do Not Relate to the Second Exception in Article 228(1)

The first step is to eliminate those paragraphs of article 217 that are without greater relevance for establishing whether a flag State has repeatedly disregarded its obligation to effectively enforce regulation 14 of MARPOL Annex VI, pursuant to the second exception in article 228(1).

[28] Otherwise the exception ought to have included a direct reference to which specific articles were covered by it, just as art 220(8) refers to art 211(6), or how art 222 relates to art 212, or art 233 to art 42.

As concluded in chapter 8, article 217(5) does not burden the flag State with an obligation but bestows a right for the flag State to request assistance from other States to determine whether a violation has occurred. This paragraph is therefore without relevance to invoking the second exception in article 228(1).

The same applies with regard to article 217(2) and (4), which require a flag State to detain a ship under its flag when the vessel does not meet the required international standards and rules (article 217(2)), and to conduct investigations into possible violations of which the flag State itself (ex officio) becomes aware (article 217(4)). Although these regulations impose obligations on flag States, the common denominator of these requirements is that it will be difficult – if not impossible – for other States or the IMO to determine and prove that a particular flag State has failed to fulfil them.

The reasoning behind this conclusion is that a flag State, with regard to article 217(2), only has jurisdiction to detain a vessel flying its flag whilst it is at berth in a port in the flag State or sailing in waters under its sovereignty.[29] This makes it difficult to prove that the flag State had knowledge of the ship's non-compliance while it was sailing or at berth at that time, particularly as regards the question of which marine fuel was being used.[30] The same problem arises in connection with proving the *mens rea* (guilty mind) of a flag State when determining (under article 217(4)) whether it should have initiated an *ex officio* investigation of a possible violation of which it had itself become aware, meaning without official information from another State or the IMO.

The statement made by this author in chapter 8 (section IV) might be recalled, pertaining to article 217(4)'s covering *unofficial* information provided by other maritime actors, such as pilots, other ships, etc. It would be difficult to prove that a flag State has disregarded its article 217(4) obligation by not responding to such information, as it left to the flag State to validate and assess the usefulness of such information, which is sometimes provided anonymously.

This author believes that ironclad evidence is needed to establish that a flag State has disregarded its article 217 obligation, so that breaches of article 217(2) and (4) are unlikely to be deemed a *disregard* in the context of the second exception in article 228(1).

[29] As described in ch 8, some flag States conduct *flag State inspections* of ships flying their flag while the ship is in port in a foreign State. Such a flag State inspection on foreign territory is based on an agreement with the foreign port State and often does not allow the flag State to unilaterally detain the ship without assistance from the foreign port State authorities. As the flag State inspection is not a mandatory obligation for port States but based on a voluntary agreement, it is without relevance to the applicability of the second exception in art 228(1).

[30] International sniffer-attached drones will often not be permitted to fly in the ports and internal waters of a flag State. Its should be recalled that a State has full sovereignty in the air space over these areas; see art 2(2) of UNCLOS, which allows the State to refuse to allow such overflights and measurements.

b. Flag State Obligations in Article 217 Relating to the Second Exception in Article 228(1)

The main obligation to which flag States must adhere is found in article 217(1), which requires a flag State to ensure that international rules for the protection of the marine environment are effectively enforced, irrespective of where a violation occurs.

When focusing on *effective enforcement*, the criteria for imposing effective penalties (fines) have been described numerous times in previous chapters of the book, thus only a short restatement of them is necessary at this point.

For a flag State to fulfil the requirement in article 217(1) (and article 4(4) of the MARPOL Convention) for effective enforcement of the MARPOL Annex VI sulphur rules in the face of violations, a fine must, as a minimum, always meet the conditions set out in article 18 of the EU Sulphur Directive, as these are universally applicable. An effective flag State fine must thus:

(a) deprive the ship(owner) of all savings achieved (including confiscating all profits made from the violation); and
(b) contain a proportionate, yet dissuasive, punitive element that increases in the event of aggravating circumstances such a deliberate or gross violations, or – most importantly – where the shipowner has continually violated the same regulations.

A flag State can also impose sanctions other than a fine, including imprisonment, as the safeguarding principle in article 230, which as a main rule restricts sanctions to monetary penalties, does not apply to flag States. In fact, such sanctions can always be imposed by a flag State, even after a fine has been levied by another (coastal or port) State (see article 228(3), discussed in chapter 12).

Yet when discussing effective enforcement in the context of the second exception in article 228(1), the absolute minimum level of acceptable enforcement must represent the bar that must be reached by the flag State. A monetary penalty (fine) is therefore used as the appropriate sanction for determining effective flag State enforcement.

Consequently, if a flag State's enforcement in response to a MARPOL Annex VI violation does not, as a minimum, meet these above-mentioned conditions (confiscating savings, being dissuasive), the flag State will have disregarded its obligation to enforce effectively in accordance with article 217, and has thereby also disregarded its obligation to enforce effectively within the scope of the second exception in article 228(1).

It is the responsibility of the flag State – in accordance with article 217(3) – to ensure that all ships flying its flag have the required international certificates on board proving compliance with IMO rules and regulations for the protection of the marine environment. This includes the International Air Pollution Prevention Certificate (IAAP Certificate) and the International Energy Efficiency Certificate (EEI Certificate), as stipulated in Annex VI. Article 217(3) further requires a flag

State to ensure that ships under its flag are subject to periodic surveys to verify that the certificates and the actual circumstances on board match.

The issuing of certificates or the completion of periodic surveys may not seem to amount to effective enforcement as covered by the second exception. Nonetheless, it must be remembered that these formal requirements of article 217(3) ensure that a ship complies with the material requirements of the different IMO regulations, including the sulphur limits in regulation 14 of MARPOL Annex VI.

A flag State's failure to issue certificates or conduct a survey is a violation of article 217(3), and would thus be a disregard of its obligation to enforce according to the second exception in article 228(1). Such violations can be established (proved) during PSCs, as the initial document control of a PSC would involve checking that the ship carries all such required and up-to-date certificates, the flag State must ensure are present.[31]

It should be recalled that a flag State's private, inter partes agreement with a *classification society* for conducting such surveys and the issuing of certificates on behalf of the flag State does not relieve the flag State of its duties and accountability under article 217(3). A failure to comply by a classification society will externally – towards the rest of the UNCLOS community – constitute a flag State's disregard of article 217, and will therefore amount to a disregard covered by the second exception in article 228(1).

The obligation for a flag State to investigate violations and – where the evidence so warrants – institute proceedings against a ship flying its flag pursuant to article 217(6) constitutes an obligation the flag State must fulfil.[32] If a flag State receives an official written request from another (coastal or port) State to investigate an alleged violation or to institute proceedings (if such evidence can be provided), it obliges the flag State to act accordingly. An example of evidence provided by another State that obliges a flag State to institute proceedings could, as described in chapter 8, be measurements made by a Continuous Emission Monitoring System (CEMS) or a sniffer attached to a drone, aircraft, etc. It is a disregard of the flag State's article 217 obligation, and thereby a second exception disregard in the context of article 228(1), if the flag State does not comply with the requirement in article 217(6) to investigate and – where the evidence so warrants – institute proceedings for violations, for example, of MARPOL Annex VI.

Article 217(7) requires flag States to *promptly* notify an informing coastal State or port State and the IMO of any steps taken by the flag State and the outcome of any legal proceedings (under article 217(6)), which includes disclosing the size of any fine imposed. The flag State must at a later stage also make the same information available to all States.[33]

[31] Increased digitalisation of international certificates could help prove a violation of the art 217(3) obligation, thereby allowing it to be more easily seen as a *disregard* in the 'second exception' context.

[32] This obligation is also found in art 4(1) (2nd sentence) of the MARPOL Convention.

[33] It is recalled that art 27 VCLT bars a flag State from excusing itself from providing such information by making reference to its national laws, eg laws on public access.

It must be presumed that the IMO Legal Committee would be able to offer some non-binding, uniform interpretational guidance on how the word 'promptly' should be interpreted, as flag States are under the same obligation to provide information pursuant to article 4(3) of the MARPOL Convention and regulation 11.4 of Annex VI for enforcing, inter alia, regulation 14 of MARPOL Annex VI.

If a flag State does not present the mandatory information within the timeframe set out in article 217(7) it will constitute a violation that is a disregard in the context of article 228(1).

Article 217(8) requires flag States to ensure that their national laws allow for penalties that are 'adequate in severity to discourage violations wherever they occur' for sanctioning ships under their flag if these violate international rules for the protection of the marine environment. If a flag State is unable to impose such discouraging penalties for violations of regulation 14 of Annex VI, for instance due to the existence of an *administrative fining* system that employs a maximum on how high a fine can be, it cannot meet the obligation of effective enforcement pursuant to article 217(1). And if a flag State fails to effectively enforce by imposing a *discouraging* fine because of its national legislation, it also fails to fulfil the requirement under article 217(8) (and article 217(1)), which is a disregard covered by the second exception in article 228(1).

To this end it should be recalled that open registry flag States were previously separated into two categories in section III.A.i of this chapter: *active flag States*, which protect ships under their flag by responding to coastal or port State information notified under article 231 and protest legal proceedings initiated by these; and *passive flag States*, which offers sanctuary to ships under their flag by not engaging in any type of enforcement or responding to a coastal State or port State. A *passive* flag State would presumably often repeatedly disregard its article 217(7) obligation to provide any information to other States and the IMO after receiving an official request in accordance with article 217(6). An *active* flag State, in comparison, would often provide information, but it would violate its obligation to enforce effectively under article 217(1), perhaps by referring to the fact that its national legislation does not permit higher fines, which is covered by article 217(8). The second exception in article 228(1) 'catches' both active and passive open registry flag States offering flags of convenience, as article 217(1) and (6)–(8) are covered by this exception.

Finally, after dissecting the different paragraphs of article 217, it should be noted that if a flag State fails to meet the third requirement of the second sentence of article 228(1) for invoking the main rule, that is, subsequently informing the coastal State or port State of its effective enforcement after bringing corresponding charges, this would, as previously described in this chapter, allow the coastal State or port State to resume the suspended proceedings. But this lack of information should *also* be counted as a disregard in terms of applying the second exception in article 228(1), and should therefore be included in the continuous assessment of how many disregards a flag State has made before this can be deemed as being done 'repeatedly'.

iii. A Flag State's Repeated Disregard of its Obligations

If a flag State fails to meet any of the relevant article 217 obligations, this constitutes a disregard of an obligation covered by the second exception in article 228(1). The next part of the second exception analysis therefore requires us to establish how many times a flag State can disregard obligations before it is deemed to have done so repeatedly, thereby allowing all coastal States and port States to deny all requests from that flag State to invoke the main rule and suspend any proceedings instituted.

Before addressing this question, however, the breadth of the scope of article 228(1) must be determined, pertaining to whether a flag State's disregard of its different obligations codified in part XII can be accumulated.

The applicability of the second exception in article 228(1) should – in the view of this author – be interpreted in the most restrictive way, as it sets aside the fundamental *flag State principle* by allowing port States to exercise primary extraterritorial jurisdiction over discharge violations on the high seas pursuant to article 218(1). The reference to 'its obligation' – in the singular form – is therefore interpreted to relate to recurring disregards of the same part XII obligation, for example article 216, or article 217 or article 223. Thus, disregards of these obligations do not accumulate.

The subsequent reference to 'the applicable international rules and standards' – in the plural form – indicates that all IMO environmental regulations are covered by the second exception. This means that even though a flag State has disregarded its obligation under article 216 of UNCLOS to take action against dumping violations of the London Convention, and has disregarded its obligation to enforce other IMO Conventions (for instance MARPOL Annexes I–VI in accordance with article 217), and even if it fails to allow representatives from the IMO and other States to attend proceedings in accordance with article 223, *these disregards of articles 216, 217 and 223 cannot be accumulated*.

If, however, a flag State on several separate occasions disregards its obligation to enforce IMO rules that are covered by the same part XII obligation, for example disregarding its obligation to enforce MARPOL Annex I and Annex VI according to article 217, *these separate disregards of article 217 can be accumulated* as these are disregards of the same obligation.

The next part of the equation involves determining what the term 'repeatedly' covers. It undoubtedly covers more than *one* disregard, but exactly how many disregards are allowed can be difficult to set in stone, as several factors come into play. This author can therefore merely offer some suggestions as to how this term can be defined and applied.

One obvious solution might, of course, be to define 'repeatedly' as a specific number, for example 5, 10 or 25 disregards. This solution might create some unwanted results, though, as 10 disregards in enforcing the Anti-Fouling Convention might not result in as much damage to the marine environment or human health as 10 disregards in enforcing MARPOL Annex II or Annex VI, or the BWM

Convention, but it still results in a flag State's loss of its primary jurisdiction due to activation of the second exception in article 228(1) – a result that might be deemed disproportionate in comparison to the disregarded obligation.

A more nuanced solution could therefore be to define the term 'repeatedly' according to each individual IMO convention for the protection of the marine environment. As just stated, the reference in the second exception to 'applicable international rules and standards' in the plural does not bar the accumulation of a flag State's disregards in enforcing different IMO conventions pursuant to article 217. But even though this is possible, it does not necessarily mean that it is the best solution, as the differences in scope and content of the different IMO regulations may make it necessary to differentiate.

It could therefore be envisioned that the IMO would offer some non-binding, uniform interpretation as to how many times a flag State might disregard its obligations according to article 217 (or article 216 pertaining to dumping) when enforcing a specific convention, before the flag State loses its jurisdiction over enforcement of this environmental IMO convention. The IMO could, for example, deem that the potential vast and damaging pollution following a *single, specific violation* of MARPOL Annexes I or II could justify only very few article 217 disregards from a flag State before it would be deemed to have *repeatedly* failed in its duty, making the second exception in article 228(1) applicable. Violations of Annex VI could also be deemed as having such an *overall* negative impact on the global environment that only few article 217 disregards would be allowed.

It should be recalled that the non-specific obligation in article 222 for ensuring flag State compliance with air pollution regulations is supported (absorbed) by the more detailed regulations under article 217. It is therefore article 217 that is used as the relevant 'minimum yardstick' to assess flag State enforcement of IMO air pollution regulations, including MARPOL Annex VI and future GHG regulations.

The IMO could supplement this approach by adopting a *sliding enforcement scale*, which would allow a more lenient approach towards flag State enforcement of new conventions that have recently come into force. The number of flag State disregards permitted in enforcing this new legislation would gradually be reduced. This approach acknowledges that flag State authorities might need a transitional period within which to adapt their investigations under and, in particular, their enforcement of such new regulations. This approach would also allow the IMO to set a timeframe for when a disregard from a flag State becomes outdated. The number of disregards relating to a certain IMO regulation could, for instance, be assessed over a constantly rolling two-year period.

Another approach for determining whether a flag State *repeatedly* has disregarded its obligation to enforce, for example in accordance with article 217, would be to focus on the subjective performance of each flag State individually, rather than identifying a specific objective number for each convention. This would allow

for other relevant factors to be considered, such as the total number of ships flying the flag of the State, what types of ship are predominantly being registered under the flag, and how many violations the flag State has dealt with effectively compared to those violations that might have 'slipped through the net'.

The reason for applying this approach would be to ensure that flag States that have large ship registries are not put at a disadvantage or subject to disproportionately harsh criteria. For example, a large flag State may have taken effective enforcement measures against 990 violations out of 1,000 committed by vessels under its flag, but if the specific cut-off limit is '10 disregards' then that flag State would be found to have *repeatedly* disregarded its obligations as covered by the second exception in article 228(1), despite having a 99% effective enforcement record. In comparison, a small flag State with few ships and nine disregards would not exceed the cut-off limit of 10 disregards, although the nine disregards in theory could represent a mere 10% effective enforcement record. These are of course extreme examples, but they underline the problem with applying specific number of disregards to define the term 'repeatedly'.

A flag State's performance should therefore be calculated on an individual, subjective basis, relating to each flag State's distinct circumstances. This approach could perhaps apply to some of the same calculating models and algorithms that are used to designate a flag State as being a so-called *black*-, *gray*- or *white*- listed flag State, as described in chapter 4. This would help to ensure that flag States are not penalised disproportionately by other States invoking the second exception of article 228(1).

iv. Consequences of Invoking the Second Exception in Article 228(1)

A coastal State or port State can invoke the second exception in article 228(1) if the required conditions are met, meaning that a flag State repeatedly has disregarded a part XII obligation, for instance article 217.

A flag State that fulfils this criterion is put on the proverbial *black list*, as all coastal States and port States can immediately sanction vessels coming from that flag State for violations of the relevant IMO environmental regulations, without having to await the flag State's response within the six-month deadline to the information provided under article 231.

This means that port States would automatically and immediately be able to conduct the previously described *end-to-end enforcement*[34] in response to violations of regulation 14 of MARPOL Annex VI over all ships coming from such a (black-listed) flag State, which repeatedly has disregarded its obligations

[34] The legal basis for end-to-end enforcement is, as described in ch 10, found in art 218(1) and (2)–(4) and art 220.

to enforce pursuant to article 217, thereby making the second exception in article 228(1) applicable.

Or, to rephrase, the flag State loses its right to assert primary extraterritorial jurisdiction over all violations in response to which it is required to act in accordance with article 217. As a result, the flag State is unable to enforce all IMO regulations covered by that part XII provision, for example all violations of MARPOL Annex VI committed by ships flying its flag. All relevant safeguarding measures should thus be followed when establishing that the second exception is applicable, as this is a very damaging sanction (and label) for a flag State – that it cannot enforce MARPOL Annex VI.

The loss of jurisdiction for a flag State pursuant to the second exception in article 228(1) should consequently be *temporary*, being limited to a specific period, such as 12 or 24 months. This *loss-of-jurisdiction period* could be followed a *probationary period*, during which the flag State's jurisdiction is restored, allowing it to assume primary jurisdiction, for example according to article 217 over all MARPOL Annex VI violations.

During this probationary period, which also could be a 12- or 24-month period or perhaps longer, the flag State would be under observation to ensure that it enforces effectively pursuant to article 217, making a lower, tolerated level of acceptable disregards over that period. Hence the reference to 'probation'.

Ensuring that the these strengthened enforcement obligations are not set aside during the probationary period should be a task performed under the auspices of the IMO or collectively by States, for example through the Memorandums of Understanding (MoUs).

On a final note, it could be argued that even though the consequences of applying the second exception in article 228(1) might seem very severe for a flag State, that State has violated basic principles within UNCLOS and international law, failing to fulfil obligations it has voluntarily undertaken by becoming a party to UNCLOS and/or MARPOL Annex VI. This violates the basic principle *pacta sunt servanda*, codified in article 26 VCLT, which also is embodied in article 235(1) of UNCLOS on State responsibility. The harshness of the second exception is therefore justified, as the flag State has violated the *pacta sunt servanda* principle on a recurring basis.

V. If Flag States are Not Party to UNCLOS or Annex VI

It should be noted that the starting point for the discussions in this chapter has been that the flag State in question is party to UNCLOS and to the violated IMO environmental regulation, for example MARPOL Annex VI. However, the legal consequences if a flag State is *not* party to either UNCLOS and/or the violated IMO regulation should, for reasons of clarity, also be explored.

A. The Flag State is Not Party to UNCLOS but is Party to an IMO Regulation

If the flag State is *not* party to UNCLOS but *is* party to the violated IMO regulation, the principles of article 217 and article 228 of the Convention should apply, as they – as was the case with article 218(1) – codify international customary law by representing 'consistent repetition of a particular behaviour', and also represent generally accepted and applied principles of international law (*opinio juris sive necessitatis*).

This means that the flag State must accept losing its natural primary jurisdiction[35] to other (coastal or port) States – which are party to UNCLOS – as they enforce in accordance with articles 218, 220 and article 228. And the non-party flag State is required to comply with the enforcement *obligations* pursuant to article 217 despite the flag State's not being a party to the Convention.

Conversely, the coastal and port States must bestow on the non-party flag State the same safeguarding *rights* under part XII, such as informing it of any investigations and proceedings instituted in accordance with the provisions of article 231, allowing flag State representatives to attend the proceedings in accordance with article 223 and permitting the non-party flag State to assume primary jurisdiction by fulfilling the three requirements for applying the main rule in article 228(1).

The flag State should not be held accountable under State liability as it is not party to UNCLOS and therefore not bound by the principle of *pacta sunt servanda* in article 26 VCLT and article 235(1) of UNCLOS.

Finally, it should be recalled that such a flag State that is party to MARPOL Annex VI but not to UNCLOS, is required to take enforcement measures against violations of Annex VI in accordance with the regulations in the Annex, including regulation 10 and regulation 11, as well as the principles of the MARPOL Convention for effective enforcement and informing other parties and the IMO thereof (see article 4), as these also apply to the Annexes.

B. The Flag States are Party to UNCLOS but Not Party to an IMO Regulation

Where the flag State *is* party to UNCLOS but *not* party to an IMO regulation, for example where the flag State is not a party to MARPOL Annex VI, the flag State is not obliged to enforce these environmental rules in accordance with UNCLOS.

The principle of *no more favourable treatment* (NMFT) will nevertheless, as described in chapter 4, ensure that ships hailing from that flag State are subject

[35] The flag State principle – as derived from the *Lotus case* (*SS Lotus (France v Turkey)* PCIJ Rep Ser A No 10) – applies to all flag States, including flag States that are not party to UNCLOS.

to the same requirements of the IMO regulations, including the sulphur limits in regulation 14 of MARPOL Annex VI, pursuant to regulation 10.3 of Annex VI and article 5(4) of the MARPOL Convention.

C. The Flag State is Party to Neither UNCLOS Nor an IMO Regulation

The previous conclusion still applies, even if a flag State is party to neither UNCLOS nor the IMO's environmental regulations, as ships under its flag must adhere to the IMO rules when voluntarily calling into the ports of another (port) State that is party to the IMO regulations, due to the principle of NMFT.[36]

VI. Conclusion on Article 228(1)

Article 228(1) establishes how any overlapping (competing) jurisdiction between a flag State and a coastal or port State is resolved.

The geographical scope of the provision covers violations that occur in a coastal State's EEZ or on the high seas. This leads to the reverse conclusion that a coastal State always has primary jurisdiction over violations taking place in its internal and territorial waters.[37]

The main rule in article 228(1) provides that the flag State has primary jurisdiction as long as it can meet three requirements – two initial preconditions and one subsequent requirement. The conditions for invoking the main rule are:

(a) that the flag State must within *six months* request the coastal State or port State to suspend its proceedings;
(b) that the flag State acknowledges its intent to institute proceedings on corresponding charges for the same violation.

If the flag State cannot meet these two preconditions, the coastal State or port State can refuse the request for suspension.

If it fulfils the preconditions then the coastal State or port State proceedings are suspended, but the flag State is subsequently obliged to inform the coastal State or

[36] The consequences of a State's threatening to withdraw from UNCLOS or the IMO regulations, such as MARPOL Annex VI, must therefore be considered limited as far as enforcement is concerned. It should be also recalled that such non-party States – whether a coastal State or a port State – cannot distort the effective enforcement of such IMO regulations, even if the violating ship first calls into a port in the non-party State after the infringement. If a non-party State does not take measures against a violation then another coastal State or port State can, at a later time, carry out the enforcement in response to the specific infringement, if the ship calls into a port in that State.

[37] The applicable exceptions described in ch 3 pertaining to sailing in the territorial sea and referenced in art 2(3), still apply.

port State of the outcome of its proceedings instituted on corresponding charges, including the size of any fine imposed. If the flag State does not provide such information, or if the information reveals ineffective enforcement, the coastal State or port State may *resume* its proceedings, including imposing a fine and claiming any financial security posted.

If the flag State fulfils all three conditions for invoking the main rule, the coastal State or port State must terminate its proceedings and release any financial security posted, provided one of the two exceptions in article 228(1) does not apply. If one the two exceptions *does* apply, it allows the coastal State or port State to refuse any initial request from the flag State for suspension, irrespective of whether the flag State fulfils all the requirements for invoking the main rule.

The *first exception* in article 228(1) refers to major damage to a coastal State following a violation in the EEZ. It is at the discretion of a coastal State whether pollution originating in a violation in the EEZ has resulted in *major damage*; the mere threat of major damage – unlike in article 220(6) and article 233 – is insufficient. A coastal State is subject to strict liability if it invokes the first exception, as article 232 makes it responsible for any damage a shipowner might suffer from unlawful enforcement. It might also incur State liability in accordance with article 235.

The *second exception* in article 228(1) covers flag States that have repeatedly disregarded a part XII obligation to enforce IMO regulations for the protection of the marine environment. The flag State must have repeatedly disregarded the same enforcement obligation, for example article 217, which encompasses enforcement of MARPOL Annex VI.

The term 'repeatedly' is open-ended, and several solutions for defining it could be applied, for example setting a specific cut-off number of allowed disregards for each IMO regulation. Another solution might be to focus on a flag State's individual ability to enforce compared to the size of its ship registry, etc, for instance by applying some of the principles used for calculating and determining whether a flag State is deemed to be on the MoUs' black, grey or white lists.

A flag State's loss of primary jurisdiction over certain violations due to application of the second exception should be limited to a specific period, perhaps one or two years, followed by a probationary period.

12

Safeguards, Liability and the Settlement of Disputes

This chapter will review some of the safeguard and liability provisions of sections 7 (articles 223–233) and 9 (article 235) of part XII of UNCLOS.[1] However, as many of these provisions have been discussed in some depth in previous chapters (eg articles 224–227 in chapter 4 and article 228(1) in chapter 11), they will not be revisited in detail here.

The chapter will also attempt to provide insight into the regulations in part XV of UNCLOS covering the settlement of disputes, including the possibility of referring a dispute on MARPOL Annex VI[2] enforcement to the International Court of Justice (ICJ), the International Tribunal on the Law of the Sea (ITLOS) or resolving it through arbitration.

I. Safeguards: Section 7 of Part XII of UNCLOS

The safeguard provisions in section 7 of part XII of UNCLOS provide a certain framework, including limitations, for flag States, coastal States and port States when exercising their jurisdiction in accordance with the enforcement regulations in section 6. The previously examined article 228(1) is an example, as it sets the limits on how coastal and port States may exercise their 'section 6 jurisdiction' (pursuant to articles 218 and 220) on the high seas and in an EEZ. Article 228(1) also places certain obligations on flag States, which they must fulfil in order to invoke this safeguard, provided neither of the two exceptions to it (examined in chapter 11) applies. Article 228 (2)–(3) set different restrictions on the application of the first paragraph of that provision, which is discussed in section I.C of this chapter. This, and the other safeguarding provisions of section 7, tries to strike a fair balance between the interests of the different States.[3]

[1] United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3.

[2] International Convention for the Prevention of Pollution from Ships (adopted on 11 February 1973, as modified by the Protocol of 17 February 1978, entered into force 2 October 1983) 1340 UNTS 61 (MARPOL), Annex VI, IMO Publication: IMO-520E.

[3] This expression is borrowed from the European Court of Justice (ECJ), which used it to describe the overall purpose of UNCLOS in Case C-308/06 *Intertanko, Intercargo, Greek Shipping*

A. Measures to Facilitate Proceedings: Article 223

Article 223 provides that all States must 'facilitate the attendance at … proceedings [instituted pursuant to Part XII] of official representatives of the competent international organization, the flag State and any State affected by pollution arising out of any violation'. This means that when a flag State initiates proceedings against a ship under its flag following a report from another State in accordance with article 217(6), or if a violation has resulted in damage to a (coastal) State, it must allow official representatives from those States and the International Maritime Organization (IMO) to attend these proceedings.

This obligation also covers the situation where a flag State has instituted proceedings by bringing *corresponding charges* in accordance with article 228(1), leading to the suspension of a coastal State's or port State's proceedings. Representatives from the coastal State or port State in question, and from the IMO, should be allowed to attend these proceedings.

Coastal States and port States are also required, by this provision, to allow representatives from the flag State and the IMO to participate in any legal proceedings initiated. For example, when a coastal State initiates proceedings in accordance with article 220(1), or a port State in accordance with article 218(1).

Some (flag, coastal or port) States may have criminal codes, etc that do not allow for such participation, specifically when dealing with criminal cases against private individuals. This should, in principle, not be an acceptable excuse (see article 27 of the Vienna Convention on the Law of Treaties (VCLT).[4] Criminal proceedings against private individuals (such as the master of the ship or a crew member) could perhaps be allowed to be carried out without representatives being present if the court were to decide to 'close the doors' of the proceedings, as this would be in alignment with United Nations (UN) principles of a fair trial.[5] Also, the other States and the IMO could, as a discretionary courtesy, refrain from invoking the right to participate in proceedings against private individuals. On the other hand, representatives should always be allowed to participate in criminal proceedings against a legal entity, often the shipowner.

Article 223 also stresses that 'The official representatives attending such proceedings shall have such rights and duties as may be provided under national laws and regulations or international law.' The reference to their enjoying rights under international law could perhaps be seen as a reference to the international rights enjoyed by diplomats and consuls in accordance with the Vienna Convention

Co-operation Committee, Lloyd's Register, International Salvage Union v Secretary of State for Transport, ECLI:EU:C:2008:312, para 58. See ch 5.

[4] Vienna Convention on the Law of Treaties 1969 (adopted 22 May 1969, entered into force 27 January 1980) 1155 UNTS 331 (VCLT).

[5] See art 10 of the Universal Declaration of Human Rights (UDHR), available at https://www.un.org/en/universal-declaration-human-rights/.

on Diplomatic Relations[6] and the Vienna Convention on Consular Relations,[7] as these officials are normally described as being *representatives* of the sending State. This would mean, for example, that any documents, etc belonging to these official representatives would be covered by the diplomatic privilege set out in article 24 of the Vienna Convention on Diplomatic Relations.

B. Exercise of Power and Investigating Foreign Vessels: Articles 224–227

The applicability of articles 224–227 is closely examined in chapter 4 relating to Port State Control (PSC) enforcement by port States, and is therefore only briefly described in this section:

- Article 224 requires all States to ensure that enforcement is exercised by government officials, or by using clearly marked and identifiable warships, ships and military aircraft.
- Article 225 stipulates that all States have a duty to ensure that their enforcement does not result in adverse consequences to the safety of navigation or the protection of the marine environment.
- Article 226 concerns the (PSC) inspection of foreign vessels, distinguishing between an initial inspection of documents and a detailed inspection of the ship, the latter requiring clear grounds.
- Article 227 bars all States from discriminating against foreign vessels, a requirement also implicitly stipulated by the 'no more favourable treatment' (NMFT) principle.[8]

C. Restrictions on the Instituting of Proceedings: Article 228(2)–(3)

Article 228(1) resolves the question of the overlapping jurisdiction between flag States and coastal or port States. This is described in further detail in chapter 11.

[6] Vienna Convention on Diplomatic Relations 1961 (done at Vienna 18 April 1961, entered into force 24 April 1964) 500 UNTS 95.

[7] Vienna Convention on Consular Relations 1961 (done at Vienna 24 April 1963, entered into force 19 March 1967) 596 UNTS 261.

[8] This non-discrimination obligation in art 227 and the NMFT principle must be seen in the light of art 217(2)–(3), which require all (flag) States to ensure that ships under their flags follow the same rules as all foreign vessels, thereby ensuring that all ships in a port adhere to the same rules, irrespective of which flag they fly.

Article 228(2) contains two obligations that must be observed, setting a *three-year limitation period* and basically codifying the principle of *ne bis in idem*, which stops a person (or company) from being tried for the same offence twice.

It must initially be highlighted that the safeguards in article 228(2) only apply to enforcement by coastal and port States, as the provision refers to *foreign vessels*. This means that flag States are not covered by the provision, so they can prosecute ships under their flag beyond the three-year limit and despite another State's already having penalised a ship for its violation. The special prerogative for flag States to take measures against violations is described in article 228(3).

A coastal State or port State must respect the three-year limitation period laid down in the first half of article 228(2) when proceeding against violations committed by foreign vessels, for example when a port State takes action in response to a violation of MARPOL Annex VI on the high seas pursuant to article 218(1).[9] The limitation period is calculated from the time when the violation occurred.

Should the national laws of a coastal or port State provide the accused (shipowner) with a more advantageous procedural safeguard, for example by offering a two-year limitation period, this should be observed.[10] This interpretation also aligns itself with the requirement found in article 230(3) of UNCLOS, which stipulates that 'the recognized rights of the accused shall be observed'.

The limitation period should be suspended, or be considered not to apply, if a shipowner deliberately seeks to prolong a legal investigation or proceedings, for example by avoiding responding to notifications from the authorities, or by not having a clear point of contact (address, phone or email) that authorities from other States can easily use to get in touch with the owner.

Further, if a flag State suspends the legal proceedings of a coastal or port State by invoking the main rule under article 228(1), it automatically also suspends the limitation period in accordance with article 228(2).

This suspension of the limitation period will overlap with the suspension of the legal proceedings. A flag State could otherwise circumvent the safeguard protection of article 228(1) by suspending the proceedings of a coastal or port State and waiting over three years before imposing an ineffective penalty or not bringing corresponding charges, for instance by completely dismissing the case.

The second half of article 228(2) stipulates that a coastal State or port State shall not institute legal proceedings against a foreign vessel if such proceedings have been commenced in accordance with article 228(1). This codifies the basic principle of *ne bis in idem*.

It should be noted that article 228(2) explicitly refers to proceedings under article 228(1). This means that article 228(2) provides that coastal States or

[9] And in the waters of other (coastal) States according to the *end-to-end enforcement* described in ch10.

[10] Conversely, the wording of art 228(2) sets the three-year limitation as a maximum that must always be observed. So even if the national laws of a coastal State or port State offer a four-year limitation period, the three-year period in art 228(2) supersedes this.

port States must respect any legal proceedings instituted by the flag State that have resulted in effective enforcement. They must also respect any proceedings commenced by another (coastal or port) State regarding the same violation. This situation could arise, for example, if a violating ship has passed through different EEZs, causing major damage to several coastal States, giving all these States primary jurisdiction (and extinguishing the flag State's jurisdiction) pursuant to the *first exception* in article 228(1). Or, if several port States wish to sanction a foreign vessel's discharge violation on the high seas and the vessel flies the flag of a flag State that repeatedly has disregarded its obligation to enforce effectively, pursuant to the *second exception* in article 228(1), which, in principle, gives all port States the right to assert primary jurisdiction over the violation according to article 218(1).

Article 228(3) clarifies the position of the flag State in this context by stipulating that neither article 228(1) nor article 228(2) prohibits that flag State from taking 'any measures, including proceedings to impose penalties, according to its laws irrespective of prior proceedings by another State'. This means that it is the prerogative of the flag State to commence proceedings for a violation committed by a ship under its flag, regardless of whether this violation has been acted on by another State and whether the flag State wishes to sanction a violation that occurred more than three years ago. This regulation aligns itself with the flag State principle, as it enables a flag State to take measures against all violations committed by a vessel under its flag.

It should be noted that article 228(3) does not influence the right of a coastal State or port State to assume primary jurisdiction in accordance with article 228(1). It 'merely' grants the flag State the sovereign right always to proceed against violations, thereby allowing the flag State to supplement any sanction imposed by a coastal State or port State, for example by imposing non-monetary penalties, such as imprisonment, for violations that took place on the high seas or in an EEZ, as coastal States and port States do not have the jurisdiction to do so (see article 230).

D. Instituting Civil Proceedings: Article 229

Article 229 clarifies that none of the provisions of UNCLOS, including part XII, hinders the right of any State to institute *civil proceedings* for any loss or damage it may have been caused following a ship's pollution of the marine environment.

For example, pursuant to article 220, a coastal State can impose a fine for violations that take place inside its waters, but if any cost directly related to the violation is not covered by the fine then article 229 can be invoked. This could perhaps lead to recouping lost revenue from tourists if a popular coastline is closed due to pollution.

Article 229 should not be confused with article 232 of UNCLOS, which allows a shipowner to institute proceedings for any economic loss the owner may have suffered due to wrongful enforcement by a State.

E. Monetary Penalties and Observance of Recognised Rights: Article 230

Article 230(1) provides that only *monetary penalties* (fines) may be imposed for violations committed by a foreign ship outside the territorial sea of a (coastal) State. This means that coastal States cannot impose other sanctions, such as imprisonment, for violations that take place in the EEZ, nor can port States sanction (discharge) violations on the high seas with any penalty other than a fine.

There are no exceptions to this, yet it must be emphasised that this provision does not bar flag States from sanctioning such violations with non-monetary penalties, for instance with imprisonment, as article 230 refers to *foreign ships*. Indeed, article 228(3) allows flag States always to supplement a coastal or port State's financial sanction (fine).

As mentioned in chapter 4, some port States use imprisonment as a PSC sanction for what seemingly relates to violations that have occurred in the EEZ or on the high seas. But before one reaches the conclusion that such a sanction is not compliant with article 230(1), two important questions must be asked and answered: What precise violation is being sanctioned? And when is it finalised?

The answers to these questions are important, because if a ship infringes one of the Annexes to the MARPOL Convention in the EEZ or on the high seas, that infringement, by itself, can only be met with a fine. But if the master and/or crew are/is questioned by a Port State Control Officer (PSCO) during a PSC about the violation in the EEZ or the high seas, and they provide false information, that false information could by itself constitute a new violation, which is committed the moment it occurs, which, in some States, can result in imprisonment, as a PSC takes place in port and imprisonment is therefore allowed in accordance with article 230.

The PSC enforcement carried out by the US Coast Guard has used this approach, and it is interpreted to be in accordance with article 230 of UNCLOS, albeit that the US is not party to UNCLOS.[11]

The same conclusion applies if a shipowner, master and/or crew has falsified any of the documentation presented during the initial part of a PSC. This could be perceived as amounting to forgery of documents, which in many States is punishable by imprisonment. Again, the crime is not committed until the moment when the falsified log or document is given to the PSCO while the vessel is in port, thereby allowing imprisonment as a sanction in accordance with article 230.

Article 230(2) stipulates that coastal States may also only impose fines for violations taking place in the *territorial sea*, unless a violation is deliberate and

[11] See CD Michel, 'Vessel Source Pollution and Protection of the Marine Environment' in MH Nordquist, TTB Koh and JN Moore (eds), *Freedom of Seas, Passage Rights and the 1982 Law of the Sea Convention* (Martinus Nijhoff Publishers, 2009) 480. The views expressed in the chapter are US Coast Guard Captain Michel's own, not necessarily representing those of the US Coast Guard.

causes serious pollution. The main rule in article 230(2), relating to the territorial sea, mimics the regulation in article 230(1) regarding the EEZ and the high seas, apart from the fact that article 230(2) allows for an exception if the violation is deliberate (wilful) and serious. This exception makes sense, as violations in the territorial sea are closer to the coast and enclosed areas of the coastal State, so that violations are more likely to cause damage. It furthermore aligns itself with the general principle in article 2 of UNCLOS, which stipulates that the coastal State, at the outset, has the same jurisdiction in the territorial sea as in internal waters.

The reverse conclusion to be drawn from article 230, and article 2(1), is that there are no limitations if a State wishes to sanction violations taking place in *internal waters* with non-monetary penalties, including imprisonment.[12] This also provides the legal basis for the abovementioned PSC sanctioning of untruthful statements or falsified documents during PSCs, as those violations are committed while the ship is at berth in port in internal waters.

Finally, article 230(3) requires that the 'recognized rights of the accused' must be observed if non-monetary penalties are imposed. Such recognised rights must, inter alia, encompass the rights to a fair trial, to be presumed innocent until proved otherwise, to legal representation, to translation and to the protection of minors.[13] It also, in the view of this author, includes ensuring that the accused enjoys the most beneficial safeguarding rights regarding any limitation period. Thus, a national two-year limitation period would trump the three-year limitation found in article 228(2).

F. Notification to the Flag State and Other States Concerned: Article 231

Article 231 of UNCLOS establishes that all States must immediately notify the flag State if they institute any enforcement measure in accordance with section 6, for example when a port State exercises jurisdiction pursuant to article 218 or a coastal State according to article 220. A notification is also made to any State affected by the pollution, such as a coastal State that sustained damage.

Enforcement measures should, recalling that article 231 relates to safeguards, be interpreted in the broadest possible sense, thereby encompassing any stopping and investigation by a coastal State pursuant to article 220, for instance pertaining to ships sailing in the EEZ, covered by article 220(5), and if a port State decides to investigate a high seas violation in accordance with article 218.

As stipulated in the second sentence of article 231, a coastal State is only under obligation to inform the flag State of measures taken concerning a violation that

[12] ibid 479.

[13] See, eg, at https://ec.europa.eu/info/policies/justice-and-fundamental-rights/criminal-justice/rights-suspects-and-accused_en.

took place in the *territorial sea* when those measures form part of legal proceedings. The discussion in and conclusion reached in chapter 9 (section III.C) should be recalled when considering whether coastal States are required to notify a flag State of any enforcement measures relating to a violation committed in their *internal waters*. Adopting a reverse conclusion from article 231, it is suggested that they are not.

The last sentence of article 231 clarifies which flag State authorities should be notified under article 231, by explicitly referring to 'diplomatic agents or consular officers and where possible the maritime authority'. Recognising the technological and communicational advances that have been made since the adoption of UNCLOS in 1982, an article 231 notification sent by email to an embassy or the consulate of the flag State located in a coastal State or port State, and to the official email address of the flag State's maritime authority, would fulfil this requirement.

The article 231 notification can represent the point in time from which the six-month period, referred to in article 228(1) (see chapter 11, section III.A), begins if the notification explicitly informs the flag State of any legal proceedings instituted in the coastal or port State.

It is important to note that the article 231 notification does *not* require any response from the flag State. Enforcement measures that have been instituted, and the six-month deadline, are therefore not affected by a lack of response from the flag State.

It is consequently important that a coastal State or port State can prove that it has fulfilled the requirement under article 231 (*in fine*) to inform the diplomatic or consular officers, and if possible the maritime authority, of the flag State. This could be done by ensuring that an email containing the article 231 notification is logged, recorded and saved in a data system used by the relevant authorities. This is a procedure already commonly applied amongst many coastal and port State authorities.

G. Liability of States Arising from Enforcement Measures: Article 232

As noted in section I.D, in instituting civil proceedings under article 229, article 232 of UNCLOS makes States liable for any loss or damage caused to a shipowner, or to others, by their wrongful application of a section 6 enforcement measure, such as a coastal State's or port State's wrongful enforcement pursuant to article 220 or article 218, or a flag State's wrongful enforcement under article 217. Also, as mentioned in chapter 4, a port State's unlawful PSC detention under article 226 could also lead to such port State liability.[14]

[14] This could be the result of a trial at the ICJ, ITLOS, etc, pursuant to art 292, which focuses on detention.

Article 232 specifies that a State's liability is limited to damage or loss resulting from the unlawful enforcement 'in the light of available information'. If a State has a legitimate reason for believing that a violation has taken place, but further investigation is required, then the State is not liable for any loss following from this investigation. For instance, if a port State detains a ship in accordance with article 226(1)(a), or if a coastal State stops a ship in transit of the EEZ pursuant to article 220(5), due to the State's having *clear grounds* for assuming that a violation had occurred. Examples of what could constitute such clear grounds regarding MARPOL Annex VI enforcement are given in chapters 4 and 9, pertaining to information provided by CEMS, sniffers, authorities in other States, etc.

The words 'in the light of available information' must include also situations where a ship (master and crew) has contributed to the belief that a violation had occurred, for example if a ship, during an initial PSC, cannot present the required valid documents to the port State authorities, or if a ship, during its transit of the EZZ, does not respond to a coastal State's request for further information in accordance with article 220(3) or if it provides incorrect information.

H. Safeguards relating to Straits Used for International Navigation: Article 233

Article 233 is a safeguard that relates exclusively to the right of foreign ships to make a transit passage through a strait used for international navigation in accordance with article 38 and the other provisions of part III of UNCLOS, as described in chapter 3 of this book.

Article 233 emphasises that 'Nothing in sections 5, 6 and 7 affects the legal regime of straits used for international navigation.' This limits the rights for coastal States to prescribe and enforce legislation in their territorial sea, for instance according to articles 211, 212, 220 and 222 of sections 5 and 6.

Yet article 233 also contains an explicit reference to the exception in article 42(1)(a) and (b), which allow a coastal State to adopt regulations relating to navigation and the protection of marine environment, with which foreign ships must comply while transiting the strait.

Article 42(1)(b) limits the scope for protection of the marine environment to a right for coastal States to implement international rules regulating discharges of *oil, oily wastes or other noxious substances* in to the strait, which must be considered a clear and unambiguous reference to MARPOL Annexes I and II. Such implemented international regulations can be enforced by the coastal State, provided it respects the other safeguarding provisions of section 7 of UNCLOS.

Article 233 refers to appropriate enforcement measures being applied *mutatis mutandis*, which, in the view of this author, is a reference to the principles of article 220(2).

As affirmed in chapter 9, because of the clear reference in article 42(1)(b) to international rules on the discharge of oil and noxious substances (ie MARPOL Annexes I and II), the provision does not cover international regulations on air emissions, such as MARPOL Annex VI or future regulations on GHG. Consequently, article 233 does not provide (coastal) States with any wider jurisdiction to act in response to violations of air emissions, including regulation 14 of Annex VI.

II. Responsibility and Liability: Section 9 of Part XII of UNCLOS

Article 235(1) of UNCLOS specifies that all States are responsible for fulfilling their international obligations for protection of the marine environment.[15] This is basically a codification of the international law principle *pacta sunt servanda*, also found in article 26 VCLT.

An example of such an obligation could be the requirement in article 217(3) for a flag State to ensure that all ships under its flag have all required certificates on board, including the International Air Pollution Prevention Certificate (IAPP Certificate) and the International Energy Efficiency Certificate (IEE Certificate) (see regulations 5–9 of MARPOL Annex VI). Another (obvious) example could be the obligation for a flag State to carry out enforcement effectively in accordance with article 217(1), and to inform the IMO and other States thereof pursuant to article 217(7).

If a flag State does not fulfil these requirements it can, besides losing its primary jurisdiction over such violations in accordance with the second exception in article 228(1), become 'liable in accordance with international law' under article 235(1).

Port States and coastal States could also be liable in accordance with article 235, for example if a ship were unlawfully detained contrary to article 226, or if a coastal State were to stop a ship in the EEZ without clear grounds in breach of article 220(5).

It must be underlined that the liability of port, coastal and flag States as regards the shipowner is covered by the previously studied article 232 (see section I.D). Article 235 relates to a State's international responsibility towards other States that are parties to UNCLOS.

The reference to liability in accordance with *international law* could cover violations of general responsibilities codified in the VCLT and application of the International Law Commission's (ILC's) work, the Articles on Responsibility of

[15] Y Tanaka, *The International Law of the Sea*, 2nd edn (Cambridge University Press, 2015) 303.

States for Internationally Wrongful Acts ('the Articles on State Responsibility').[16] Chapter II of the ILC Articles on State Responsibility relates to 'Reparation for injuries' following a State's violation of its international obligations, covering *reparation* (article 34), *restitution* (article 35), *compensation* (article 36), *satisfaction* (article 37) and *interest payable on sums awarded* (article 38).

The concept of *compensation* in particular must be presumed to be an effective legal tool for penalising a State, provided another State has been injured (sustained a loss), for example a coastal State that has been injured by pollution, or a flag State whose vessels have been detained unlawfully by a port State. This assumption is based, inter alia, on case law from the ICJ (and its predecessor the Permanent Court of International Justice (PCIJ)) and ITLOS, as they have used compensation as a measure of adjudication that is described by the ILC in its comments to article 36. The ILC refers[17] to the *Corfu Channel case*,[18] where the United Kingdom (UK) sought compensation from Albania for damage sustained by the UK destroyers *Saumarez* and *Volage*, which the PCIJ awarded.

The ILC also refers[19] to the decision from ITLOS in the second *M/V Saiga case*,[20] where the State of Saint Vincent and the Grenadines sought compensation from Guinea following a wrongful arrest and detention of the vessel *M/V Saiga* flying its flag. ITLOS accepted, in general, this claim for compensation.

If a State therefore violates its obligations pursuant to part XII of UNCLOS, it can result in that State's being liable in accordance with international law, which potentially can result in the State's paying compensation pursuant to article 36 of the ILC Articles on State Responsibility to any State that has sustained damage from the violation.

Article 235(2) of UNCLOS attempts to ensure that the judicial systems of all States will allow a party to bring a claim for compensation or other relief in a fast and uncomplicated way. This could relate to a flag State's being liable for damage resulting from a violation committed by a ship under its flag and which is attributable to the flag State. It could also relate to a port State's being liable for a PSCO's wrongful exercise of power, or a coastal State's being liable for the unlawful stopping of a foreign ship during its innocent or transit passage of the territorial sea.

Article 235(3), inter alia, requires all States to cooperate in the implementation of existing international law and the further development of international law

[16] International Law Commission, *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, November 2001, Supplement No 10 (A/56/10), chp IV.E.1, available at https://www.refworld.org/docid/3ddb8f804.html. It should be noted that references to these Articles sometimes use the full title set out in the ILC Yearbook, ie 'Draft Articles …'. However, given their adoption in 2001, this author will not refer to these Articles as 'drafts'. This is also in line with how the Special Rapporteur behind the work, Cambridge Professor James Crawford, refers to them (see at http://legal.un.org/avl/ha/rsiwa/rsiwa.html).

[17] ibid, 100, section 9.

[18] See *Corfu Channel, Assessment of Amount of Compensation*, Judgment, [1949] ICJ Rep 244, 250.

[19] ILC, n 16, 100, section 10.

[20] See *M/V Saiga (No 2) (Saint Vincent and the Grenadines v.Guinea)*, Judgment, [1999] ITLOS Rep 65, para 170.

pertaining to State responsibility and liability.[21] The reference to 'further development of international law' clearly stresses that international law, including the law of the sea, is dynamic and constantly evolving. This supports the interpretation of article 218(1) that has the term 'discharge' encompassing releases.[22]

III. Settlement of Disputes: Part XV

Part XV (articles 279–299 and Annexes V–VIII) of UNCLOS contains provisions on how disputes regarding the interpretation and application of the Convention should be resolved. Some of these are discussed in this section, as it establishes that there are judicial organs that, for example, can ensure compliance with the protective safeguards described in this chapter.

The interpretations and conclusions set out in this part of the book (Part II), including applying the term 'discharge' under article 218(1) to cover emissions and using article 228(1) as described in chapter 11, can also be brought before one of the judicial bodies under part XV of UNCLOS.

Article 279 of UNCLOS reiterates one of the most basic principles of international law, which stipulates that States shall settle any dispute by peaceful means. This is considered a jus cogens norm,[23] and it is codified in article 2(3) of the UN Charter.[24]

Article 280 allows the participating States to decide which peaceful means (judicial organ) should be used to settle a dispute.

Under article 282, any provisions or procedures for dispute settlement found in another international convention or agreement, to which the States in dispute are also parties, should be applied unless the parties in question agree otherwise.

A State may, in accordance with article 286, submit a request to a court or tribunal described in section 2 of part XV, if it is not possible for the parties

[21] Examples could include the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (adopted 18 December 1971, entered into force 16 October 1978, as modified by the Protocol of 27 November 1992, entered into force 30 May 1996) 1110 UNTS 57 ('the Fund Convention') and the International Convention on Civil Liability for Oil Pollution Damage (adopted 29 November 1969, entered into force 19 June 1975, as modified by the Protocol of 27 November 1992, entered into force 30 May 1996) 973 UNTS 3 ('the CLC Convention').

[22] That international law is under constant development is also the reason why this author believes that the combination of the continued worsening conditions of the environment due to pollution from GHGs and the fact that ships occupy a unique legal position within international law, means that it is possible to develop principles for future enforcement of GHG regulations relating to ships by application of the jus cogens and erga omnes principles. especially considering ICJ case law and the comments from the ILC pertaining to previous Draft Articles on State Responsibility on this matter. This is analysed in Part IV of this book.

[23] M Dixon, *International Law* (Oxford University Press, 2007) 275.

[24] Charter of the United Nations and Statute of the International Court of Justice (adopted 26 June 1945, entered into force 24 October 1945) 1 UNTS XVI.

to agree on which dispute-settlement mechanism should be used. Section 2 (articles 286–296) contains the *compulsory procedures entailing binding decisions*.

Article 287(1)(a)–(d) list the different judicial organs on which a party to UNCLOS can call to settle a dispute with binding effect.[25] These are;

(a) ITLOS;
(b) the ICJ;
(c) an arbitral tribunal; or
(d) a special arbitral tribunal relating to one or more of the categories specified in Annex VIII to UNCLOS.

Article 287(3) specifies that that arbitration in accordance with article 287(1)(c) shall be deemed to have been accepted if no other measure is decided upon.

Article 288 establishes that all the courts and tribunals listed in article 287(1) have jurisdiction over any dispute pertaining to the interpretation and application of UNCLOS. They can also, where a case so warrants, use experts and invoke provisional measures pursuant to article 289 and article 290.

All States that are parties to UNCLOS have, in accordance with article 291(1), the right to have proceedings brought before these courts and tribunals. However, all *local remedies* (ie in national courts) must have been exhausted beforehand (see article 295).

Article 292(1) relates to the specific situation where a vessel is *detained*, stipulating an expedited procedure. It allows such a dispute to be submitted to a court or tribunal, listed in article 287(1), within 10 days. This could, for example, relate to a port State's detaining a vessel during a PSC in accordance with article 226(1)(c), or a coastal State's detaining a vessel during its direct transit of the EEZ pursuant to article 220(5).[26]

This underlines that detention, as described in chapter 4, is an effective, but also expensive, PSC sanction due to the costs of a commercial vessel's being unable to deliver its cargo on time and meet future cargo deliveries and port slots in a timely manner.

Article 292(2) provides that only the flag State, or a State acting on behalf of the flag State, can submit such a detention dispute as is described in article 292(1). The court or tribunal in question must thereafter, without delay, decide upon the legality of the detention itself (see article 292(3)). This is without prejudice to a subsequent trial and a settlement of the underlying dispute that resulted in the detention.

Article 292(4) affirms that these principles also apply to detention instituted to obtain financial security (a bond) in accordance with article 226(1)(b).

[25] Tanaka, n 15, 426.

[26] Art 297 lists several exceptions to the jurisdiction of the courts or tribunals mentioned in section 2. However, a coastal State's enforcement of international environmental rules for the protection of the marine environment, such as MARPOL Annex VI, is not one of these – see art 297(1)(c).

Article 292(4) requires the detaining (coastal or port) State to release the vessel once the court has reached a decision in this matter and it has been executed.

Article 293(1) specifies that the court or tribunal must apply the provisions of UNCLOS when settling disputes. It can also apply other rules of international law, provided these are not incompatible with the Convention. This must, inter alia, encompass the recognised sources of international law listed in article 38(1)(a)–(d) of the Statute of the ICJ,[27] especially as the ICJ is one of the courts to which a dispute can be referred. One of the recognised sources comprises international conventions, in accordance with article 38(1)(a) of the Statute, which means that the VCLT, the ILC Articles on State Responsibility and the MARPOL Convention, including Annex VI, can be applied by the courts and tribunals. Article 38(1)(b) of the ICJ Statute also includes customary principles of international law, such as the principle of NMFT.

As concluded in chapter 5, the principles of article 18 of the EU Sulphur Directive[28] might also be considered by a court or tribunal when determining whether a flag State's fine has been an effective measure of enforcement in accordance with article 217(1), or whether a port State's claim for financial security is proportionate. An EU regulation, such as article 18 of the Sulphur Directive, could be considered 'subsidiary means for the determination of rules of law', as it was developed and presented by a highly qualified publicist (the EU) within international law (see article 38(1)(d) of the ICJ Statute).

Both article 293(2) of UNCLOS and article 38(2) of the ICJ Statute allow the courts and tribunals to decide a case *ex aequo et bono*, if the parties so agree.

Finally and very importantly, article 296(1) states that any decision rendered by a court or tribunal is *final and binding* on the parties to the dispute. Conversely, article 296(2) proclaims that these decisions have no effect on States other than those parties involved in the dispute.

The wording of article 296(2) should, in the view of the author, be interpreted in a very literal sense, meaning that the legal precedent formed by the case law of the ICJ and ITLOS is still undeniably important, as these rulings provide insight into the interpretation, application and development of international law, including the law of the sea.

A. Cases Relating to Enforcement of MARPOL Annex VI

As mentioned previously, article 282 of UNCLOS stipulates that any dispute settlement provisions or procedures incorporated in another international convention or agreement, to which the States in dispute are also parties, should be applied unless the parties in dispute agree otherwise.

[27] See the UN Charter, n 24.

[28] Directive (EU) 2016/802 of the European Parliament and of the Council of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels [2016] OJ L132/58.

When looking into the enforcement of MARPOL Annex VI, it is worth noting that article 10 of the MARPOL Convention, which also applies to the Annexes pursuant to article 1(2), provides that any disputes should be settled by negotiation or, if necessary, in accordance with the dispute-settlement procedures of Protocol II to the MARPOL Convention, which refers to *arbitration*.

It is essential to distinguish what forms the basis of a dispute pertaining to the enforcement of MARPOL Annex VI. If it concerns a dispute directly related to Annex VI, for example whether an IAPP Certificate is issued correctly, or whether an Exhaust Gas Cleaning System (EGCS) is correctly approved by the flag State, then the dispute is subject to arbitration in accordance with article 10 of the MARPOL Convention. But if it concerns the interpretation and application of the provisions of UNCLOS, such as applying article 218(1) to cover emission violations on the high seas, then the dispute should be settled in accordance with part XV of UNCLOS at one of the courts or tribunals listed in article 287(1).

The application of article 228(1) of UNCLOS would also be encompassed by part XV, for example to ensure that the requirements for invoking the main rule were met by a flag State, including determining if evidence of effective enforcement by the bringing of corresponding charges was subsequently furnished to the coastal State or port State. The judicial organ under part XV could also check if there were grounds for invoking any of the exceptions in article 228(1), including the second exception relating to whether a flag State has repeatedly disregarded its obligations of effective enforcement.

Article 292(1) allows the judicial bodies listed in article 287(1) to make an in-depth evaluation of whether financial security, required by a port State as part of a detention for violation of MARPOL Annex VI, is 'reasonable' (ie adequate and proportionate). Otherwise, the court or tribunal can determine what the size of the financial security should be pursuant to article 292(4). Article 292 therefore provides the courts and tribunals with an implicit safeguarding right to determine whether an impending port State fine for violation of the regulation 14 sulphur limit is adequate and reasonable, as the financial security should be proportionate to the possible size of a future fine which the security is intended to cover.

The reference in article 293 to *international law* allows the judicial organs to use the parameters set out in article 18 of the EU Sulphur Directive as guidance on whether a flag State's enforcement has been effective, and thereby meets the requirements of article 217(1), and to determine the proportionate size of any financial security requested by a coastal State or port State for an Annex VI violation.

It is worth noting that ITLOS has the power to convene a *special chamber* when special expertise is needed, for example in environmental matters: see article 15 of the ITLOS Statute, found in Annex VI to UNCLOS. Also, article 2(1) of Annex VIII to UNCLOS ('Special Arbitration') explicitly refers to the 'protection and preservation of the marine environment' as being one of the fields for which a list of experts must be established and maintained.

Article 5(1) of Annex VIII to UNCLOS allows a party to request the special arbitral tribunal to *carry out an inquiry* in order to establish what the facts are in a particular case. The result thereof is binding on the parties to the case pursuant to article 5(2). This could be a valuable tool when establishing whether an infringement of regulation 14 of Annex VI has been sufficiently proved, for instance by a CEMS or a sniffer attached to a drone.

Finally, the ICJ must also be considered extremely capable of handling such disputes, as it often rules in cases with a maritime[29] and environmental[30] interest.

IV. Conclusion

When a coastal State or port State enforces rules and regulations for the protection of the marine environment in accordance with the *lex specialis* provisions of section 6 of UNCLOS, such as articles 220 or 218, it must meet the safeguarding standards and requirements set out in section 7.

Article 223 provides that all States must allow representatives from the IMO, the flag State and any (coastal) State affected by the pollution to attend the legal proceedings instituted. Those representatives are protected under international law.

Article 224–227 cover a (port) State's ability to investigate a foreign ship and the limitations thereon, for instance relating to the PSC enforcement regimes described in chapter 4.

Article 228(2) lays down a three-year limitation period, as well as codifying the principle of *ne bis in idem*. The latter principle only applies if an *effective* penalty (fine) has been imposed. Article 228(3) ensures that flag States are always allowed to supplement a foreign State's sanction with their own sanctions, such as imprisonment.

Article 229 enables a coastal State to institute civil legal proceedings against a shipowner for additional costs and damage not covered by a fine.

Article 230 sets the parameters regarding how non-flag States can sanction foreign ships and shipowners, stipulating that monetary penalties (fines) are the main rule. They are also the only rule (option) for port States when enforcing on the high seas pursuant to article 218(1). Exceptions to the main rule apply for coastal States taking action against damaging and wilful violations within their internal or territorial waters. Port States can also, as part of a PSC, penalise violations with non-monetary penalties if a violation is committed while the vessel is

[29] See, for instance, the *Corfu Channel case* in n 18. See also the judgment of the PCIJ (the ICJ's predecessor) in the *Lotus case* (*SS Lotus (France v Turkey)* PCIJ Rep Ser A No 10), discussed in ch 6.

[30] See the ICJ case law analysed in ch 17 of this book, relating to the *Legality of the Threat or Use of Nuclear Weapons*, *Gabčíkovo-Nagymaros Project* and *The Pulp Mills of the River Uruguay*.

at berth in port, for example by giving a false statement to a PSCO or presenting falsified certificates and official documents.

Article 231 provides that all coastal or port States must promptly inform the flag State authorities of any enforcement instituted pursuant to section 6. These authorities are diplomatic or consular officers and, if possible, the maritime authorities. The article 231 notification should also mark the beginning of the six-month period within which the flag State must react if it wishes to suspend proceedings undertaken by a coastal State or port State (see 'the main rule' in article 228(1), discussed in chapter 11).

Article 232 specifies that a State is liable for any unlawful enforcement measure that results in damage or loss. This liability is limited to what was unlawful in the light of *available information*. This means that a port State is not liable for any delay or loss suffered by a ship(owner) due to a detailed PSC inspection, even though no violation is found, provided the PSC inspection had been instituted on clear grounds.[31]

Article 233 allows a coastal State to proceed against any violation of the rules and regulations adopted in accordance with article 42(1)(a) and (b), which regulate the right of foreign ships to transit an international strait, in matters of navigation and the protection of the marine environment. Article 42(1)(b) limits the scope of the latter to implemented international rules relating to the discharge of oil and other noxious substances, such as MARPOL Annexes I and II, but clearly not Annex VI.

Section 9 (article 235) of part XII of UNCLOS reiterates the basic obligation for all States to comply with any agreements or conventions into which they voluntarily may have entered, in accordance with the principle *pacta sunt servanda*. If not, a State may be held liable by other States that are parties to the same agreement or convention. This can, inter alia, result in the payment of compensation.

Part XV of UNCLOS establishes how disputes between parties to the Convention can be settled. First, article 279 stipulates that any dispute settlement must be peaceful.

Article 286 provides that if agreement cannot be reached on how to settle the dispute, one of the judicial organs listed in article 287(1)(a)–(d) can render a binding decision. These organs are ITLOS, the ICJ, an arbitral tribunal or a special arbitral tribunal.

Article 292 relates specifically to matters of detention, including determining whether financial security should be paid and the amount thereof.

Article 293 creates a tie to article 38(1) of the ICJ Statute, establishing that any decision must be made in accordance with international law, which includes

[31] It is noted that clear grounds for detailed PSC inspections could result from different factors, for instance following a sniffer measurement, faulty documentation, interviews with the crew, the ship's risk profile (previously logged deficiencies and its flag State's white-, grey- or black-list status) or by looking at the overall condition of the ship. Concentrated inspection campaigns can also subject a ship to a detailed inspection.

UNCLOS and other relevant sources of international law. The EU Sulphur Directive can be seen as a secondary source pursuant to article 38(1)(d) of the Statute.

Article 296(1) concludes that any decision by a court or tribunal listed in article 287(1) is final and binding on the parties.

Disputes regarding the interpretation and application of the provisions and regulations of the MARPOL Convention and its Annexes should be settled by negotiation or by arbitration according to article 10 and the procedures found in Protocol II to the MARPOL Convention. However, the judicial bodies listed in part XV of UNCLOS should be applied if a dispute relates to the enforcement of MARPOL Annex VI, through the provisions of part XII of UNCLOS. This means that ITLOS or the ICJ could determine, and approve, the application of article 218(1) to cover emission violations on the high seas, and how the exceptions in article 228(1) of UNCLOS apply.

13

Enforcement of Sulphur Regulations: Conclusion

This chapter seeks to provide a brief summary of some of the aspects discussed in the chapters comprising Part II of this book.

It will be recalled that the chapters in Part I offered a general overview of and insight into the overall problems with enforcing the sulphur regulations in MARPOL Annex VI (chapter 1),[1] the detailed regulations in Annex VI (chapter 2), the basic regulation of UNCLOS (chapter 3),[2] Port State Control (PSC – chapter 4), the EU Sulphur Directive (chapter 5)[3] and the basic jurisdictional principles of international law (chapter 6).

Part II has attempted to clarify relevant parts of the legal basis found in part XII of UNCLOS, particularly the provisions in section 5 on international rules and national legislation to prevent, reduce and control pollution of the marine environment (including articles 211 and 212), section 6 on enforcement (including articles 217, 218 and 220) and section 7 on safeguards (including article 228).[4]

I. Obligations to Implement, Adopt and Enforce

The focus in the first chapter in Part II (chapter 7) was on the provisions relating to joint cooperation between States, for instance within the International Maritime Organization (IMO), for the protection of the marine environment (see articles 197–199).

In this context it was recalled that the term 'protection of the marine environment' encompasses the protection of human health, following the definition in

[1] International Convention for the Prevention of Pollution from Ships (adopted on 11 February 1973, as modified by the Protocol of 17 February 1978, entered into force 2 October 1983) 1340 UNTS 61 (MARPOL), Annex VI, IMO Publication: IMO-520E.

[2] United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3.

[3] Directive (EU) 2016/802 of the European Parliament and of the Council of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels [2016] OJ L132/58.

[4] Parts I and II have also included brief discussions of, and made reference to, section 8 (ice-covered areas), section 9 (responsibility and liability), section 10 (sovereign immunity) and section 11 (obligations under other conventions on the protection and preservation of the marine environment).

article 1(1)(4) of UNCLOS, covering sulphur pollution. Greenhouse gas (GHG) pollution will also be covered by this description given the direct and indirect adverse impact of it, as described in Part IV of this book.

Chapter 7 then described the provisions conferring obligations on States to implement international rules and regulations for protection of the marine environment, and the possibilities for adopting national laws. The general legal basis for this is found in article 211, with somewhat limited possibilities for coastal States to regulate in the EEZ according to article 211(6), or according to article 234 if the EEZ is ice-covered.

It was noted that article 212 has a fixed scope on adopting national regulations pertaining to air pollution, including establishing national sulphur limits.

Article 222 refers to the enforcement of legislation on air pollution adopted in accordance with article 212. The provision also emphasises the need for all States to implement international regulations for protection of the marine environment, for example MARPOL Annex VI. Article 222 could therefore, in principle, be seen as the primary provision of part XII of UNCLOS for ensuring that coastal and flag States enforce Annex VI.

Nevertheless, article 222 of UNCLOS has a narrow geographical scope that limits a coastal State's right to enforce air pollution regulations in internal and territorial waters. Article 220, on the other hand, supports a coastal State's enforcement of such air pollution regulations, for example pertaining to extraterritorial enforcement of MARPOL Annex VI (or GHG rules) in the EEZ. This is conditional upon the ship's subsequently calling into a port in the coastal State, pursuant to article 220(1). It is also noted that the narrow geographical scope of article 222 has no overlap with the port State's extraterritorial jurisdiction on the high seas pursuant to article 218(1).

Article 222 must further be supported by article 217 pertaining to flag State enforcement of such emissions regulations, for example regulation 14 of Annex VI, as article 222 lacks clarity and detail regarding what flag State enforcement should entail. The generally applicable article 217 on flag State enforcement is therefore the primary provision of part XII for obligating and ensuring a flag State's effective enforcement of such regulations.

II. Flag State Jurisdiction

Chapter 8 sought to analyse article 217(1), which requires flag States to proceed against violations, committed by ships under their flag, of environmental regulations, such as MARPOL Annex VI, irrespective of where these occur, including on the high seas.

This requires flag States to impose sanctions (fines) for violations of regulation 14 of Annex VI, which will confiscate all savings achieved by violating the regulations *and* deter future violations by imposing a discouraging punitive

element that will increase in the event of aggravating circumstances, such as repeated violations. This follows the principles set out in article 18 of the Sulphur Directive. Furthermore, the national legislation must not bar such effective enforcement as is specified in article 217(8).

Also, flag States must, in accordance with the first part of article 217(7), immediately report their effective enforcement directly to the IMO and the State that, pursuant to article 217(6), reported the violation. The same obligation is found in article 4(3) of the MARPOL Convention. This information must afterwards, in accordance with the second part of article 217(7), be made available to all States. This could include using the IMO-operated GISIS database, especially when focusing on MARPOL Annex VI enforcement, as GISIS already has a module for such flag State reports given the onus under regulation 11.4 of MARPOL Annex VI, which requires a flag State to report its enforcement of the Annex, including the sulphur limits in regulation 14.

National legislation cannot prevent the flag State providing such article 217(7) information (and regulation 11.4 information), as stated in article 27 of the Vienna Convention on the Law of Treaties (VCLT).[5]

Finally, the flag State must allow representatives from the IMO, and any State affected by the violation, to attend any legal proceedings (see article 223). Any representative attending such proceedings shall, inter alia, enjoy such diplomatic rights of protection as are provided under international law.

III. Coastal State Jurisdiction

Chapter 9 studied the implications of coastal States' proceeding against violations of regulation 14 of MARPOL Annex VI in accordance with article 220 (with article 222). This enforcement relates to violations taking place in internal or territorial waters, or in the State's EEZ. The coastal State has full jurisdiction over all such violations, including in the EEZ, provided the ship subsequently voluntarily calls into a port in the coastal State, pursuant to article 220(1).

Certain exceptions apply to a coastal State's right to enforce in territorial waters, regarding foreign ships making an innocent passage in accordance with articles 17–19, or a transit passage in an international strait in accordance with article 38. Yet environmental rules adopted in accordance with article 21(1)(f) can be enforced over ships making an innocent passage pursuant to article 220(2), and rules adopted in accordance with article 42(1)(a) and (b) can be enforced over ships making a transit passage (see article 233). The adoption and enforcement of regulations relating to transit passage in an international strait are limited to MARPOL Annexes I and II, not covering Annex VI.

[5] Vienna Convention on the Law of Treaties 1969 (adopted 22 May 1969, entered into force 27 January 1980) 1155 UNTS 331 (VCLT).

A coastal State's jurisdiction could, in theory, be extended in accordance with the principle of *hot pursuit* found in article 111. This would allow coastal States to follow a ship, which is not complying with MARPOL Annex VI while sailing in internal or territorial waters, out to the high seas, where it can stop, investigate and prosecute it. This, inter alia, necessitates that the coastal State has clear grounds for believing that a violation has occurred and that the State, at all times, has visual contact with the ship. These requirements could perhaps be met by using a drone with a visual uplink and an attached sniffer.

IV. Port State Jurisdiction

Chapter 10 describes how article 218(1) provides port States with an extraterritorial jurisdictional basis for penalising discharge violations of international regulations committed outside the State's territory, meaning on the high seas or in the waters of another State. This enforcement is conditional upon the foreign ship's afterwards voluntarily going into port in the port State.[6]

The term 'discharge' in article 218(1) should, in accordance with article 31(1) VCLT, be interpreted and applied in the broadest conceivable way, as it refers to 'any' discharge, an approach that was confirmed by the European Court of Justice in the 2018 *Bosphorus Queen case*.[7]

This interpretation clearly shows that 'discharge' can cover emissions, such as sulphur or GHG (CO_2) emissions, as the word *discharge*, according to different English dictionaries and thesauruses, inter alia covers the release of 'fumes', 'particles', 'gas', 'smoke' and, of course, 'emissions'.

This conclusion is reinforced by the definition of 'discharge' in article 2(3)(a) of the MARPOL Convention, which applies to Annex VI,[8] as, inter alia, it refers to *emitting*, thus covering emissions. This also coincides with how the term is already applied in regulation 12.7.3 of MARPOL Annex VI, covering discharge of ozone depleting substances into the atmosphere.

Consequently, port States can, in accordance with article 218(1) of UNCLOS, take action against violations of the 0.5% sulphur limit under MARPOL Annex VI on the high seas, and in the waters of other (coastal) States (see article 218(2)–(4)). This is irrespective of which flag the foreign ship flies due to the principle of 'no more favourable treatment' found in regulation 10.3 of Annex VI, in accordance with article 5(4) of the MARPOL Convention. Such enforcement by the port State

[6] A Kanehara, 'Environmental Protection of Ocean and Flag-State Jurisdiction' Rikkyo University, Faculty of Law, paper presented at the 8th Conference of SCA Qingdao, China, 27–30 May 2008, 14.

[7] Case C-15/17 *Bosphorus Queen Shipping Ltd Corp v Rajavartiolaitos*, ECLI:EU:C:2018:557.

[8] See art 1(2) of the MARPOL Convention.

can only result in a monetary sanction (fine) as it concerns a high seas violation, in accordance with article 230(1) of UNCLOS.

It is noted that the port State must notify the flag State of this enforcement action pursuant to article 231. It must also allow representatives from the IMO and flag State to participate in any legal proceedings (see article 223).

The port State's extraterritorial jurisdiction according to article 218(1) (outside its own waters) leads to this jurisdiction's overlapping with the jurisdiction of a flag State regarding violations on the high seas, and overlapping with the jurisdiction of a coastal State regarding violations taking place within the waters of that State.

Article 218(2)–(4) clarify the latter situation between a coastal State and a port State, stipulating that the coastal State has primary jurisdiction. However, this impliedly allows coastal States to empower/allow port States to take action against such violations on their behalf, as article 218(1) also gives port States jurisdiction in these areas. Such consent can be given on an *ad hoc* or *post hoc* basis, but it could also be given as *ante hoc consent*, for example as part of the coordinated PSC scheme within the different Memorandums of Understanding (MoUs).

This would allow port States to carry out an end-to-end enforcement regarding a foreign ship's entire violation of MARPOL Annex VI, irrespective of where the ship had sailed before coming into port in the port State, including sailing in and out of foreign and own waters and on the high seas.

This extraterritorial jurisdiction for port States to *enforce* would, as described in chapter 6, encompass the right to *adjudicate on* these violations, which includes prescribing fines that remove (confiscate) all savings achieved during the entire violation and imposing a punitive element, which will increase in the event of aggravating circumstances such as repeated violations.

V. Clarifying Overlapping Jurisdictions

Chapter 11 describes the overlapping jurisdiction between flag States (article 217) and port States (article 218(1)) for violations on the high seas, which is resolved in accordance with article 228(1). This provision also deals with a flag State's overlapping jurisdiction with a coastal State (article 220).

That article 228 is the beacon for resolving these matters is accentuated by the direct reference in article 217(4) to the flag State's jurisdiction respecting articles 218, 220 and 228.

The geographical scope of article 228(1) covers violations taking place on the high seas or in a coastal State's EEZ. The reverse conclusion establishes that a coastal State has primary jurisdiction over violations taking place in its internal and territorial waters.

Article 228(1) consists of a main rule and two exceptions for determining which State can assert primary jurisdiction over a violation that takes place in an EEZ or on the high seas.

A. The Main Rule under Article 228(1)

The *main rule* grants the flag State primary jurisdiction over these violations, provided it can meet three preconditions set out in the first and second sentences of article 228(1):

(a) the flag State must within *six months* request the coastal or port State to suspend its proceedings;
(b) the flag State must, at the same time, make assurances as to its intent to bring *corresponding charges*.

The coastal or port State can carry out its own enforcement proceedings if these two preconditions are *not* met by the flag State, but the coastal or port State must suspend its proceedings if these preconditions *are* met. The following condition then stipulates:

(c) the flag State must afterwards present the coastal State with case records, etc, *proving* that it brought corresponding charges that resulted in effective enforcement.

The coastal or port State can, if the flag State does not provide such information or if the information reveals an ineffective or non-corresponding enforcement,[9] *resume* the suspended proceedings and impose a fine, which is covered by claiming any financial security posted.

If a flag State can fulfil all three requirements, it qualifies to invoke the main rule and assert jurisdiction over the violations occurring in the EEZ and on the high seas. The port or coastal State must fully terminate its, up-until-that-point, suspended proceedings and release any security posted.

However, if one of the two exceptions codified in the first sentence of article 228(1) applies, a coastal State or port State may deny a 'main-rule request' from a flag State, regardless of the flag State's observing preconditions for doing so.

B. The First Exception under Article 228(1)

The *first exception* in article 228(1) pertains to a coastal State's suffering *major damage* following a violation in the EEZ.

The coastal State may, in these first-exception cases, where an EEZ violation has caused major damage, instigate proceedings immediately and deny any flag State request for suspension. The coastal State should nonetheless still observe the requirement set out in article 231 and inform the flag State of its enforcement.

It is at the outset for the coastal State to determine if pollution has caused major damage, but the coastal State can be held liable in accordance with article 232

[9] An effective flag State fine for a violation of reg 14 of Annex VI should meet the criteria set out in art 18 of the Sulphur Directive, which also applies when determining if a flag State has brought a 'corresponding charge'.

if its enforcement is unlawful or disproportionate, for example if its assessment of the severity of the pollution is wrong. A flag State can use the judicial mechanisms found in part XV of UNCLOS (such as the International Court of Justice (ICJ) or International Tribunal for the Law of the Sea (ITLOS)) if it wants to question this assessment by the coastal State.

As stated in chapter 11, it cannot be presumed that a violation of regulation 14 of MARPOL Annex VI will result in pollution that can be deemed to have caused *major damage*, as this must refer to tangible pollution.

C. The Second Exception under Article 228(1)

The *second exception* in article 228(1) allows all States, including port States, to deny a flag State's request for suspension pursuant to the main rule, if the flag State in question 'repeatedly has disregarded its obligation to enforce effectively' the international regulations for protection of the marine environment, including MARPOL Annex VI.

This refers to the flag State's obligation to undertake effective enforcement pursuant to article 217, including the requirement (in article 217(1)) to take action against violations irrespective of where these took place, including on the high seas.

An example of a flag State's *disregard* could, relating to enforcement of regulation 14 of Annex VI in accordance with article 217(1), be a flag State's failure to prescribe fines that confiscate all savings achieved by a violation or to impose a dissuasive punitive element. A disregard could also be a flag State's neglecting to inform the IMO and other States of this enforcement in accordance with article 217(7).

The word 'repeatedly' is not defined in UNCLOS, but several possibilities for applying the second exception could be envisioned, for instance by setting a specific number of occasions of disregarded enforcement that, under certain conditions, would constitute acting (or not acting) 'repeatedly'. The term could also be applied on an individual flag State basis, perhaps by following the principles set out for calculating if a flag State should be white-, grey- or black-listed, as used by some MoU systems (see chapter 4).

Thus, all port States may, if a flag State has repeatedly disregarded its obligation to enforce regulation 14 of Annex VI effectively, deny the flag State's request for suspension of any proceedings commenced, and instead conclude these by imposing a dissuasive fine.

The port State must still observe the requirements to: notify the flag State of its enforcement in accordance with article 231; only impose a monetary penalty pursuant to article 230; and allow flag State (and IMO) representatives to attend the legal proceedings (see article 223).

A flag State's loss of primary jurisdiction over certain violations, such as all violations of MARPOL Annex VI committed by ships under its flag, should be limited to a specific period, for example one to two years, followed by a probationary period during which the flag State's enforcement record will be under close scrutiny.

VI. Safeguards

Chapter 12 lists many of the safeguard obligations found in section 7 of part XII of UNCLOS, to which States must adhere when enforcing in accordance with the provisions of section 6. This includes allowing representatives to participate in proceedings (article 223), only imposing fines depending on where the violation took place (article 230) and notifying the flag State of any enforcement (article 231).

Articles 224–227 were also re-examined after a more comprehensive study of them in chapter 4 on PSC enforcement.

Article 228(2) establishes a three-year limitation period and codifies the principle of *ne bis in idem*. Article 228(3) underlines the flag State's prerogative to supplement sanctions imposed by other States with its own penalties, such as imprisonment. The flag State is not subject to the limitations in article 230.

Article 229 enables a coastal State to commence civil legal proceedings for any damage sustained that is not covered by a normal fine.

Article 232 makes a State is liable for any unlawful enforcement if it results in damage or loss for a ship(owner) or others.

Article 233 enables coastal States to enforce violations of rules adopted in accordance with article 42(1)(a) and (b). Article 233 basically provides the jurisdictional basis that allows coastal States to proceed against violations of MARPOL Annexes I and II (but not Annex VI) over foreign ships in transit through an international strait located in the territorial sea.

Article 235, in section 9, stipulates that all States that are party to UNCLOS must meet and fulfil the obligations placed upon them in accordance with the Convention.

Chapter 12 also addresses part XV of UNCLOS, pertaining to how disputes on the interpretation and application of the Convention can be settled. Article 287(1)(a)–(d) refer to ITLOS, the ICJ, an arbitral tribunal or a special arbitral tribunal as being the judicial organs that can settle such disputes with binding effect. Article 292 specifically relates to settling disputes concerning detention, including determining proportionate financial security. A dispute relating to definitions and the application of the provisions of part XII of UNCLOS, such as articles 217, 218, 220, 226 and 228, for instituting proceedings for violations of MARPOL Annex VI, could therefore be brought before these courts and tribunals.

VII. Enforcing MARPOL Annex VI: Conclusion

A port State has, pursuant to article 218(1) of UNCLOS, extraterritorial jurisdiction to bring proceedings for violations of the 0.5% sulphur limit in MARPOL Annex VI, including on the high seas. The flag State also has an obligation to ensure compliance with the rules and standards, in accordance with article 217.

The flag State's high seas jurisdiction over violations supersedes the port State's jurisdiction, provided it meets the conditions of article 228(1) for invoking the main rule.

Even if these obligations are met, a coastal State or a port State can deny the flag State its primary jurisdiction if one of the two exceptions in article 228(1) applies. The first exception relates solely to coastal State proceedings against violations that resulted in major damage, and is not applicable to enforcement of MARPOL Annex VI.

Port States and coastal States can, however, deny a flag State its primary jurisdiction by way of the second exception in article 228(1), which applies if a flag State has repeatedly disregarded its obligation to effectively enforce the rules and regulations applicable to violations of Annex VI in accordance with article 217.

Port States could, according to article 218(2)–(4), enter into agreements with any affected (coastal) States, enabling the port State to carry out end-to-end enforcement against violations of regulation 14 of Annex VI, by imposing a fine that covers the entire violation, irrespective of where the ship sailed, and confiscating all savings achieved, plus adding a dissuasive punitive element. To re-use the example from chapter 1, a port State could thus impose a fine that confiscates the $750,000 saving gained by a ship(owner) from violating regulation 14 of MARPOL Annex VI whilst sailing from Asia to Europe. The fine must also include a dissuasive element, which will increase in the event of aggravating circumstances, such as repeated violations by the same shipowner. This could, for example, amount to one-third of the saved amount ($250,000), so that the port State could punish a first-time violation with a fine of $1 million. Fines of $10 million or above would thus be possible if a shipowner were repeatedly and intentionally to violate these regulations.

Such fines might seem unnaturally high for some port States compared to the normal level of fines imposed during PSCs. Nonetheless, such fines must be imposed to remove the economic incentive to violate the sulphur regulations in Annex VI and deter future violations. This is imperative if the estimated human health benefits are to be achieved from applying the lower 0.5% sulphur limit, including avoiding 137,000 early deaths and preventing 7.6 million children from developing asthma.

Whether these conclusions can be applied to other existing IMO regulations is examined in the next part of the book (Part III), in chapter 14. That Part also contains a chapter (chapter 15) examining how these conclusions in Part II might apply to future regulations on GHG (CO_2), depending on what legislative measures are adopted by the IMO, for example whether it introduces measures regulating zero-carbon or fossil-free fuels, speed reductions, etc. Each of these potential legislative measures presents its own possibilities and challenges for being enforced by non-flag States in accordance with part XII of UNCLOS, including on the high seas.