Introduction

1. The Study is required to investigate in particular two potential EC instruments, one involving regulatory control of the sulphur content of marine bunker fuel, so as to reduce ships’ emissions of SO2, and a second involving the use of an economic instrument, environmentally-differentiated shipping dues, to reduce ship emissions of both SO2 and NOx. In principle, other approaches, involving for example regulatory control of NOx (or, indeed, SO2) funnel emissions or the use of other market-based instruments (defined below at paragraph A4/373), should not be excluded. Indeed, the optimum approach to reducing ship emissions affecting Europe might well be through use of a combination of approaches and instruments: market-based instruments have been successfully used in both national and regional contexts, but it is increasingly recognised that their use...
should normally occur only in combination with a degree of regulation (see paragraph A4/403 below). This Appendix will thus concentrate on the two potential instruments specified in the Technical Annex to the invitation to tender, while also bearing in mind the possible alternatives.

2. It should be emphasised _ab initio_ that each of the two potential EC instruments raises very different legal questions from the other, particularly in the sphere of public international law, and to a lesser extent in EC law.

3. A system of environmentally differentiated shipping dues, on the one hand, is by its nature entirely likely to be port-based; indeed, the Technical Annex, emphasises the need to study port dues in particular. It will operate, therefore, within the sovereign territory of the Member State where each port operating the system is located. (It is assumed that the Technical Annex’s reference to ‘shipping dues’ refers only to dues, such as port and fairway dues, levied in port and that the Commission does not intend to suggest any departure from the normal system of charging ships for services on a port call- (rather than transiting traffic-) basis. This is despite the existence of an obligation to pay dues for transits of the Turkish Straits, and formerly the Sound, and recent discussion of the possibility of introducing such dues in the Straits of Malacca and Singapore.)

4. The international legal position surrounding shipping dues may be summarised as follows. In ports (and other internal waters, which are all the waters lying inshore of States’ coastal baselines), the coastal State has full sovereignty. Except in one special case (waters newly enclosed within straight baselines drawn in accordance with Article 7 of the 1982 UN Convention on the Law of the Sea (LOSC)) foreign ships enjoy no rights of passage there. They also enjoy no right of access to ports: absent any treaty provisions to the contrary, and subject to the right of vessels in distress to enter these waters in order to save lives at sea, the coastal State is, on the better view of the law, able to exclude from these waters and/or apply its national laws and regulations to foreign ships. Having jurisdiction concurrent with that of a vessel’s flag State, it may regulate the vessel without restriction, other than those arising from its general international obligations (including the rule against ‘abuse of rights’ - see below at paragraphs A4/200-202 - and restrictions, if any, arising from the temporary and voluntary nature of the vessel’s presence; in-port measures in particular that have the practical effect of imposing requirements above international standards that the vessel must comply with throughout its voyage in order to comply in port are likely to be hotly disputed: see below at paragraphs A4/134-151). In addition, the coastal State will generally not seek to exercise jurisdiction over matters considered part of the ‘internal economy’ of the ship.

5. Regulation of the sulphur content of marine bunker fuel, on the other hand, involves a choice between simply restricting the sulphur content of bunkers sold to shipping in EU ports and seeking to control the fuel being used by ships in ports and adjacent waters, or perhaps doing both. The first choice involves merely imposing obligations on domestic manufacturers and suppliers of bunker fuel, as well perhaps as on port and terminal operators, in the EU. It would thus, like a system of environmentally differentiated shipping dues, be restricted in its operation to national territories. The second choice, on the other hand, involves ‘reaching out’ to control matters beyond, as well as within, ports (or land territory). It thus raises the issue whether or not an EC Member State is entitled under public international law, _qua_ coastal State, to regulate beyond globally agreed or generally accepted international standards the content of fuel being used by foreign ships in its
6. It might be argued that the second choice does not arise where air pollution regulations applied to foreign ships in an EU port in effect set the standard each ship has to meet everywhere, because it would be impracticable or pointless (for the reasons explained in Section A5.5 below) for it to change its mode of operation once beyond the 'legal reach' of those regulations. In such a case, it is arguably unnecessary for the Member State to prescribe standards applicable to foreign ships beyond its ports, at least in the absence of significant amounts of transiting traffic. An in-port requirement for ships to use on-board SCR, exhaust gas cleaning system or similar technology, designed to reduce in-port emissions might be a good example; once the technology is fitted, there is little point in not using it whenever the engines are running, unless it be the cost of urea for SCR operations (see Section A5.5 below) or the cost of disposal of waste products (but see BMT and Plant, 1997, and COM (1998) 452 final). Such a standard would generally be classified as a ‘construction, design, equipment or manning’ (‘CDEM’) standard, which in effect travels with the ship, and which is most conveniently enforced in port. The international legal significance of this classification is discussed further below at paragraphs A4/51, 52, 61 and 64, and especially at Section 2.2.3.1). As noted above, however, such a requirement going beyond globally agreed minimum standards is likely to be hotly disputed by other States. For this reason, the Commission might prefer the alternative regulatory approach based on ‘emissions’, rather than CDEM, standards. It might, for example, seek to set limit levels for emissions in EC waters, or it might seek to specify the sulphur content of the bunker fuel that may be used in EC waters; there is some doubt as to whether the latter would qualify as an emissions or a CDEM standard, but, in our opinion, the Commission could convincingly argue the former: see Section 2.2.3.1 below). As emission standards would need to operate beyond as well as within ports, it is necessary to examine below the legal limitations upon coastal State jurisdiction.

7. Whereas, therefore, the environmentally differentiated dues approach raises only issues of the relative roles and powers of the flag State of the ship and of the port/coastal State in its ports, the ‘sulphur content’ approach potentially raises also the question of the jurisdiction and role of the coastal State beyond its ports.

8. As far as EC law is concerned, the main difference between the regulatory and economic instrument approaches derives from the sensitivity of Member States in fiscal matters. This is reflected in the different voting procedures for the adoption of EC measures: regulatory measures may be adopted through the co-decision procedure, while the adoption of economic instruments requires unanimity in the Council (as to this see below, paragraphs A4/309, 314, 320, 347, 352, 382 and 401).

9. Bearing in mind the matters outlined above, this Appendix examines the legal considerations surrounding the development of an EC system to reduce ship emissions of SO2 and NOx (an ‘EC ship emissions regime’) by reference to five
'baselines’, each of which circumscribes the Community’s scope for prescriptive and enforcement action. It then proceeds to discuss compliance aspects, in the broadest sense.

A4: 1  The General Principle Baseline

A4: 1.1 Ship-Source Air Pollution Distinguished from Regulation of Ship-board Incineration

10. Prior to the adoption of Annex VI to the International Convention for the Prevention of Pollution from Ships, as read with the 1978 Protocol thereto (MARPOL Annex VI), in September 1997, there had been no attempt at global regulation of ship-source air pollution. The pre-existing regulation of incineration at sea under the 1972 London and Oslo (now the 1992 OSPAR) Conventions is distinguishable as relating to land-generated waste, the incineration of which is the sole or main purpose of the voyage in question. In the same vein, MARPOL Annex VI regulates separately from ‘regular’ ships’ emissions (i.e. those produced by the internal combustion of fossil fuels) ‘shipboard incineration’. This is defined as ‘the incineration of wastes or other matter on board a ship, if such wastes or other matter were generated during the normal operation of the ship’ (Reg. VI/2(8)) and is thus best seen as an aspect of on-board waste management. It is more closely connected with the operation of certain other MARPOL Annexes (in particular Annex V), the IMO’s voluntary guidelines on specifications for incinerators and the availability vel non of adequate shore-based ships’ waste reception facilities (as to which see BMT and Plant, 1997, and COM(1998) 452 final), than with contributions to air pollution and its acidifying and other consequences, except perhaps in a local, especially in-port, context. This Study does not, therefore, deal with it expressly.

A4: 1.2 Choice of Regulatory Approaches. Standards Based on: Critical Loads; Technology; Ambient Air Quality

11. When the 1985 Protocol on the Reduction of Sulphur Emissions Oxides or their Transboundary Fluxes by at least Thirty Per Cent (the First Sulphur Protocol) to the 1979 UNECE Convention on Long-Range Transboundary Air Pollution (LRTAP Convention) was negotiated, a simple approach was taken, based on ‘aggregate (percentage) goals’. This was because some difficulty was encountered in choosing between the different reduction strategies that presented themselves. These were: ambient air quality standards, as favoured by the USA; critical loads, the choice of the Netherlands; and technology-based emission standards, as favoured by Sweden and Germany (Hohman, 1994, p. 284). Indeed, the influence of Germany’s preference for technology standards is still seen in Article 6 of the LRTAP Convention, where Parties’ commitments to promulgate policies, strategies and technical measures is limited by its (the FRG’s) amendments that the measures must be compatible with the use of ‘best available technology’ that is ‘economically viable’; some UNECE States, of course, remain bound only to this (i.e. to the Convention and/or Protocols not adopting the critical loads approach). On the other hand, the 1988 (at least in its second stage: cf. Article 2(3)) and 1994 Protocols to the Convention, concerning respectively the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes and Further Reduction of Sulphur Emissions (the NOx and Second Sulphur Protocols) opted for the critical loads approach, as has the EC in its parallel Directives. This Study is strongly predicated upon the continuation of this EC policy.
12. Being based in environmentally grounded goals, the critical loads approach provides a basis, lacking in the earlier aggregate goals approach, for co-ordinating national efforts to achieve regional goals and for implementing the most cost effective solution: Fraenkel, 1989, pp. 474-75. Although not without its critics (see, for example, Hohman, 1994, p. 286, note 65, citing M. Bothe), it is inherently linked to the concept of sustainable development in that depositions and levels of exposure to pollutants above critical loads are ultimately unsustainable. It is thus arguably consistent with the principle of sustainability now enshrined in the EC Treaty (Article 6: see Section 4.1.1 below).

13. The critical loads approach can, however, only operate as well as the computer models permit and to the extent that the data employed by them is reliable. Not only have some States Parties been slow to deliver reliable data, but also the data on ‘miscellaneous’ sources of air pollution in Europe, primarily shipping, have historically been neglected. The result is that, even with recent efforts to provide more reliable data on shipping, political decisions surrounding law-making in this area have necessarily been made in the past on the basis of unreliable data. Any further European legislation should ideally take place in the context of continuing efforts to produce better data and better modelling, and should be flexible enough to take into account changed needs evidenced by these. It is encouraging, therefore, to note that the new Protocol to Abate Acidification, Eutrophication and Ground-Level Ozone (the Multi-Pollutants Protocol), which was developed in close parallel with EC efforts, ‘is the start of a process, by which a continuous work to improve data on air pollution and its damaging impacts to human health and environment is foreseen (sic). Activities also include further refinement of critical loads/levels and of computer modelling for integrated assessment [and] will form the basis for the review of the protocol, … about 2003-2004 a timing that fits perfectly with the foreseen review of the proposed EU NEC-directive [i.e. EC doc. COM (1999) 125 final]’: Ågren, 1999, paragraph 3.5.

A4: 1.3 Differences in Principle and Practice between the Control of NOx and SO2 Emissions

14. The regulation of SO2 emissions has tended to precede that of NOx emissions: the first Protocol to the LRTAP Convention governed sulphur emissions and pre-dated the NOx Protocol by three years; the NOx Protocol itself was a compromise involving two stages, the first to satisfy the majority of States, which were reluctant to accept concrete reductions in emissions, and only the second moving towards a critical loads approach; and the Second Sulphur Protocol preceded efforts to agree a new Protocol to further improve controls of NOx emissions, which in the event resulted in the Multi-Pollutants Protocol, which deals with SO2 too. Perhaps more important still from the point of view of ships’ emissions was the virtual neglect of any discussion of NOx issues in the diplomatic conference that adopted MARPOL Annex VI at the IMO, in September 1997 (Ninaber, 1997, p. 9).

15. This relative neglect of NOx is easy to understand. Both substances are major causes of acidification, but sulphur emissions come largely from easily controlled point sources, whereas NOx comes, in large measure, from mobile sources (but see, as to the contribution from ports, where shipping can be seen as an ‘area source’ of pollution, Section A2.2.3 above). Given the clear correlation between the sulphur content of fuel and the likely amounts of SO2 produced by its combustion, SO2 emissions may be regulated either directly (emission limits at the funnel) or indirectly (limits on sulphur content of fuels). On the other hand, only direct regulation of NOx emissions is possible, given that emissions from a given quantity of fuel vary according to a number of factors affecting the combustion process,
and not simply the nitrogenous content of the fuel consumed. In addition, and largely in consequence, information on control techniques and their costs were slower to emerge in the case of NOx (Hohman, 1994, p. 286).

16. The Multi-Pollutants Protocol represents, however, a change in this respect. While early negotiations concerned only NOx, they were extended to include other acidifying emissions, SO2 and ammonia, as well as VOCs, in an effort to take a more integrated approach to air pollution, taking account of synergies. This, and the ambitious (‘G5/2’) scenario against which negotiations took place, has been heavily influenced by, and is conversely likely to strengthen, EC environmental policy, including the Acidification Strategy (Ågren, 1999, paragraph 3.5). The Protocol sets binding national emission ceilings (NECs) and emission and fuel standards for both stationary and mobile sources. It is discussed further below, in section A4/2.3.5).

A4: 2 The General International Legal Standards Baseline:

General International Law Principles regarding Environmental Protection from Transboundary Air Pollution, the Law of the Sea and Jurisdiction under International Law

17. ‘[I]n so far as Member States under International Law have jurisdiction with respect to safety and environmental aspects of shipping activities, the Community is entitled to exercise those competences. Given the broad competences of the [EC] Treaty, the scope of the Community’s competences follows those of the Member States under International Law’: Nollkaemper and Hey, 1995, p. 287. EC legislation establishing an EC ships’ emissions regime will clearly be binding upon Member States and their ships. The legal opposability of such a regime vis-à-vis third States, however, will vary (especially as regards any regulation at sea of the sulphur content of bunker fuel) according to whether or not the relevant States are Parties to: the LOSC; MARPOL Annex VI (at least when it comes into force); the LRTAP Convention and its various protocols; and/or other pertinent treaties, such as the 1974 Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area (1974 Helsinki Convention). As some States whose ships enter European waters might be Parties to none of these, it is well to consider first the position in customary international law. At least two principles of customary international law are relevant, the ‘no harm’ principle and the ‘good neighbourliness’ principle.

A4: 2.1 General International Customary Law Principles regarding Environmental Protection from Transboundary Air Pollution

18. Some instances of ship-source air pollution can be adequately tackled at a national or sub-national level, especially where they involve essentially local effects. Ships using inland waterways are, for this reason, excluded from this Study, and MARPOL Annex VI effectively excludes from its scope vessels engaged solely in domestic voyages, as well as small and other ‘non-Convention’ craft and smaller ships’ engines (see below paragraph 4/452). Other instances, whose effects are transboundary, can, in principle at least, be resolved bilaterally or by shared action of a small group of States: there is nothing to prevent, for example, the French and/or British authorities attempting to negotiate solutions to the coastal impacts of polluting emissions from ships in the English Channel with the individual flag States of passing vessels, nor the Rotterdam port authority (with or without Dutch Government encouragement) trying to do the same with the flag States of ships visiting the port (indeed, the voluntary Green Award system, described in Section
A3/4 above, can be seen in this light). Member States are also free to agree to exclude, for environmental protection purposes, all vessels, or certain types of vessel, flying their flags from areas of each others’ waters, as Italy and France have done in relation to tankers and ships carrying hazardous and noxious substances in the Strait of Bonifacio (see IMO doc. MSC 62/23/9); even if this is done for other purposes, it will affect air pollution patterns.

19. The international nature of shipping, however, and the large number of flag States makes this approach very largely impracticable. The work of EMEP has clearly confirmed, moreover, the realisation at the beginning of the 1980s that the acidifying effects of air pollution in Europe are a regional problem, requiring regional, rather than bilateral, ‘good neighbourly’, solutions. The same also appears to be true to a lesser extent of certain other effects of trans-boundary air pollution, including eutrophication and health effects. Although, as has been demonstrated in Section A6/3.2, the main terrestrial impacts of ship-source air pollution in Europe are limited to land within relatively short distances from coasts, they affect the territory of most of the Member States, and the principle that they require a regional solution remains.

20. One aspect of the regional nature of the problem in the past has been the difficulty of tracing the cause of damaging depositions in individual countries back to its source elsewhere. In 1979, when the LRTAP Convention was negotiated, it was impossible to trace it back even to major point or area sources or, worse still, to individual countries of origin: hence, the definition of ‘long-range transboundary air pollution’. Article 1(b) gives this as: ‘air pollution whose physical origin is situated wholly or in part within the area under the national jurisdiction of one State and which has adverse effects in the area under the national jurisdiction of another State at such a distance that it is not generally possible to distinguish the contribution of individual emission sources or groups of sources (emphasis added)’. With modern techniques it is now possible to calculate with reasonable accuracy the amounts of transboundary pollution emanating from individual countries and to identify the areas where it is deposited (Birnie and Boyle, 1992, p. 394). A State might, therefore, in principle be able after all to ‘deal’ with transboundary air pollution bilaterally (but retrospectively), by resorting to an inter-State claim. Certainly, by this means it might be able to attribute responsibility for serious harmful effects on its territory to another State for its lack of due diligence in controlling air pollution from its (the other State’s) territory (cf. the Trail Smelter arbitration of 1939; see also Handl, 1986, and Kirgis, 1972, p. 294). It would, however, have much greater difficulty bringing such a claim in respect of ship-source air pollution: it is now possible to identify with reasonable accuracy the emissions arising from individual sea areas or ports, but not, it appears, to do the same for individual ships or even national fleets.

21. In practice, States prefer in any event to leave the matter to private law remedies, and in some cases to facilitate redress for transboundary injury through regimes granting equal access to civil remedies to foreign claimants without discrimination as to nationality (see: OECD Council Recommendations; 1974 Nordic Convention for the Protection of the Marine Environment; and the Austrian, French and Dutch practice, referred to in Birnie and Boyle, 1992, pp. 197-98. The national tort laws of certain flag States might apply to permit a remedy in principle for damage caused by transboundary ship-source emissions to claimants in EC/EEA Member States. In practice, however, the difficulties likely to surround a claim (and in particular the
difficulty of identifying individual polluters to sue) would be likely to exceed even those encountered in respect of the Torrey Canyon incident of 1967. In that instance the problems surrounding potential claims were such as to lead to the negotiation of international joint compensation schemes (commencing with the CLC) for oil pollution damage. No such schemes exist in respect of air pollution damage.

A4: 2.1.1 The ‘No Harm’ Principle:

23. The main significance of the Trail Smelter arbitration, however, was not its affording ex post facto remedies for certain kinds of transboundary environmental harm, but its enunciation of the ‘no harm’ or ‘preventive’ principle of customary international law. This has been more recently developed and expanded in Principle 21 of the 1972 Stockholm Declaration, which declares States’ responsibility ‘to ensure that activities within their jurisdiction or control [which includes the operation of national public and private fleets] do not cause damage to the environment of other states or to areas beyond the limits of national jurisdiction’. This, or its language, is reaffirmed in Principle 2 of the 1992 Rio Declaration on Environment and Development and recalled in numerous treaties, including the LOSC (see section 2.2 below), each of which serves to capture in specific contexts and reinforce the customary law principle. The International Court of Justice (ICJ) has recognised that the principle is part of the corpus of customary international law: Nuclear Weapons Advisory Opinion, paragraph 26; Gabcikovo-Nagymaros, paragraph 140.

24. States are thus clearly under a duty to take suitable preventive measures, including with respect to their public and private shipping operations, to protect the environment. The standard of conduct required of a State is the exercise of ‘due diligence’, which involves the introduction of legislation and administrative controls applicable to both public and private conduct that are capable of effectively protecting other States and the global environment; it is not made an absolute guarantor of the prevention of harm (Birnie and Boyle, 1992, p. 93). To meet this standard, therefore, a flag State must have in place legislation and a maritime administration capable of ensuring that its ships do not cause unacceptably (or ‘unreasonably’) damaging amounts of air pollution. The weakness of this principle lies precisely there, however, in the absence of guidance on precisely what legislation or controls are required of States in each instance. Something more is needed to give it content in concrete cases.

25. One useful approach is to refer for guidance to such formulations as the ‘best available technology’ or ‘best practical means’, as more often than not qualified by reference to reasonable economic cost (yielding the acronym ‘BATNEEC’), and this is indeed reflected in Article 6 of the LRTAP Convention (see above paragraph A4/11). The technique generally employed by States, however, including in relation to transboundary air pollution, has been to look to internationally agreed minimum standards set out in treaties (or, where States are unwilling to be legally bound, in non-binding instruments).

26. These standards can be very detailed and precise, as in the case of MARPOL. Unfortunately, however, that degree of detail and precision can be rendered less certain by the lack of universal adherence to the treaty and/or the standards in question and the difficulty of identifying precisely which standards are being referred to. Article 192 LOSC, for example, sets out States’ general customary international law obligation ‘to protect and preserve the marine environment’, and Article 194(2) reproduces the language of Principle 21 cited above. The, more
detailed, specific provision on prescriptive standards to govern pollution from vessels (representing the presumptive standard of ‘due diligence’ in this case) are to be found in Article 211. But this includes a ‘rule of reference’ with no more precision than the requiring of flag State’s laws and regulations to ‘at least have the same effect as’ the ‘generally accepted international rules and standards’ (GAIRAS) ‘adopted through the competent international organization’ (i.e. IMO) ‘or general diplomatic conference’: Article 211(2). What is clear is that States have the choice of means how to achieve those standards and are free to adopt higher standards, as long as these are not discriminatory nor inconsistent with the LOSC as a whole: Rosenne and Yankov, 1991, p. 203. On the other hand, ‘GAIRAS’ is undefined, and its meaning the subject of much debate (see, for example, ILA, 1998). The preferred (academic) interpretation, according to Molenaar (1998, p. 183) ‘is that this qualification is met when the criteria “widespread and representative participation in the convention, provided it included that of States whose interests were specifically affected”, are fulfilled’. Theoretically, at least, non-binding instruments can also represent GAIRAS.

27. The limited examination of State practice (a full examination would be extremely difficult) by Molenaar (1998, pp. 176-78; and ILA, 1998) was unable, however, to indicate that States in general ‘take account of anything more than that the instruments have entered into force’. ‘GAIRAS’ as used in Article 211(2) LOSC is generally seen as a coded reference to the MARPOL Convention itself and to at least its compulsory Annexes, I and II, which are very widely adhered to, including by States whose interests are specifically affected. On the other hand, it is less certain that MARPOL optional Annexes III and V represent GAIRAS (Annex IV, not yet being in force, cannot represent GAIRAS), if only because fewer States, representing a lower aggregate tonnage of world merchant shipping, are Parties to them than to the compulsory Annexes. The other problem is the lack of universal adherence to the LOSC. It might be argued, as for example the USA has (IMO doc. FSI 5/4/3) that, if the LOSC (apart from the controversial Part XI) represents customary international law, so do its rules of reference, such that GAIRAS are universally binding. This would, however, be to by-pass the necessity of examining State practice to determine in each instance whether each provision, including its rules of reference, is indeed accepted as customary law, and it would not by-pass the need in any event to clarify what are GAIRAS.

28. Even where a treaty provision merely requires a State, when prescribing laws and regulations, to ‘take into account’ internationally agreed standards, some (albeit less) guidance as to the content of the general obligation of due diligence is obtained. This is the case with Article 212, concerning pollution ‘from or through’ the atmosphere, which, it will be argued below, applies in lieu of Article 211, to ship-source air pollution: see Section 2.2.3.2 and especially paragraph A4/35, below and (as to the modification of this by MARPOL Reg. VI/11(6)) Section 2.2.4. If, however, one tries to determine what standard of diligence is required of flag States with regard to controlling their vessels’ pollution of the European atmosphere, one faces two further difficulties: the first attempt at global standards in the field, MARPOL Annex VI, is not yet in force (only Norway and Sweden have ratified it to date); and it sets relatively low standards anyway (see section 3.1 below). This lack of precision is perhaps not surprising given that, although ship-source air pollution dates back to the fitting of engines to ships, it has only recently, and after the negotiation of the LOSC, become a matter of major environmental concern.
29. It is, therefore, extremely difficult, for example, to argue that foreign vessels have a customary law duty to limit the sulphur content of the marine bunker fuel used in EC waters even to the high global cap established therein, 4.5% (or 1.5% in the Baltic SOxECA), let alone to lower levels, or otherwise to reduce their emissions even to MARPOL Annex VI standards.

30. Beyond this it is difficult to determine what the duty of due diligence requires. For example, paragraph 17.30 of Agenda 21 (strictly a non-binding instrument, although Charney argues that Chapter 17 ‘was considered as law even before the [LOSC] entered into force’: 1994, p. 882, note 11), states that States, acting individually, bilaterally, regionally or multilaterally ‘should assess the need for additional measures to address degradation of the marine environment’. This, however is apparently limited, in the case of ship-source air pollution, to ‘Supporting the ongoing activity within IMO regarding development of appropriate measures for reducing’ it (paragraph 17.30(a)(xi)) and in any event does not refer to the protection of terrestrial environments, the main concern of this Study.

A4: 2.1.2 The ‘Good Neighbourliness’ Principle:

31. The atmosphere is not a distinct category in international law. As it consists of a fluctuating and dynamic air mass, the European atmosphere cannot be equated to European air space, which is merely a spatial dimension subject to the sovereignty of the subjacent States. It cannot, in addition, be equated to common property, precisely because it is superjacent to that sovereignty. It can, however, arguably be treated as a shared European natural resource, a concept which, although controversial, is entirely consistent with the regulatory approach taken by the UNECE in the LRTAP Convention and its Protocols and in relevant regional seas conventions. Birnie and Boyle employ (1992, at 390) the Executive Director of UNEP’s indication of his belief that ‘air sheds’ are shared natural resources (in UN doc. UNEP/GC/44 (1975), paragraph 86) as evidence that the atmosphere can be treated as such on a regional or bilateral basis. Given that ‘air shed’ is a term commonly used by scientists to refer to smaller units within a regional air mass, such as the Baltic air shed, rather than the whole regional air mass, that evidence is at least employable in a regional seas or bilateral context. This might be of some significance to this Study, given the Baltic Sea SOxECA precedent and that the English Channel and southern North Sea appear to be particular ‘hot spots’ for ship-source pollution.

32. It is in the context of shared natural resources, indeed, that one finds ‘a substantial pedigree of international support’ for the existence of a customary law requirement of prior consultation of other concerned States based on adequate information (Birnie and Boyle, 1992, p. 102). According to Birnie and Boyle (ibid., p. 103), ‘the basic principle that states must co-operate in avoiding adverse effects on their neighbours through a system of impact assessment, notification, consultation, and negotiation appears generally to be endorsed by the relevant jurisprudence, the declarations of international bodies, and the work of the [International Law Commission].. [and] it also enjoys some support in state practice’. It is a duty to co-operate to mitigate transboundary environmental risks. Such requirements are reflected, for example, in Principle 19 of the Rio Declaration and in Articles 5 and 8 of the LRTAP Convention; the latter require respectively consultations to be held, upon request, between the Parties causing or potentially causing pollution and those exposed to it, and the exchange of relevant information.
33. It is not entirely clear that this 'good neighbourliness' principle can be generalised to impose obligations on third States: the concept appears to be closely tied to that of the equitable utilisation of a shared natural resource, and perhaps only binds the Sharers of the European air mass, viz. at least the Members of UNECE (or, perhaps more accurately, the 41 European Parties among the 43 Parties to the LRTAP Convention). It is, on the other hand, reflected as a general duty in relation to protection of the marine environment, in Articles 198 and 200 LOSC. In any event, it only imposes procedural obligations; it gives only a right to have the issue negotiated in good faith and no right to prevent the polluting activity in question from going ahead or continuing. Alone it thus appears to provide no real legal basis for preventing even vessels registered in UNECE Member States from operating in EC waters using high-sulphur fuels, or otherwise producing high emissions, although it adds in some small degree to the jurisdictional basis for EC or EC Member State action.

A4: 2.2 Law of the Sea

34. Thirteen Member States and the EC itself are Parties to the LOSC; in addition, Denmark and Luxembourg, have signed it. The Convention now has 133 Parties, including the EC. It is generally regarded as representing in large part the customary international law relevant to the law of the sea, including most aspects of navigation and the protection of the marine environment. The LOSC seeks, indeed, to provide a balance between the interests of the international community in navigation (whether this is seen in terms of the freedom of ships to move about and/or their freedom from 'excessive' coastal State regulation) and of coastal States in protecting themselves from ship-source pollution. Part XII (on 'Protection and Preservation of the Marine Environment') is largely devoted to achieving a precise balance between the two, including through specific enforcement and safeguard provisions. The Convention adopts in large part a 'zonal' approach to regulation, providing different rules according to the proximity of the waters of the zone in question to the coasts of coastal States, and to certain other geographical factors. As an exception to this, it also makes some provision for exceptional environmental protective measures in 'special circumstances'.

35. In doing this, however, the LOSC appears to adopt one approach for pollution from vessels in general and another for vessel-source air pollution. It seems quite clear that UNCLOS III intended ship-source air pollution to be primarily dealt with under Articles 212 and 222, rather than Articles 211 and 220 LOSC. The enumeration of the sources of pollution under Article 194(3) places them in separate sub-paragraphs, the sub-paragraph on pollution from vessels, (b), referring to 'discharges' but not emissions; and Articles 212 and 222, which deal with 'pollution from or through the atmosphere', specifically refer to vessels.

36. Sections 2.2.1 and .2 will outline the legal position with respect to pollution from vessels in general, aiming, in doing so, to raise some questions relevant to air pollution too; Section 2.2.3 will deal with the, rather different, LOSC regime governing vessel-source air pollution; and Section 2.2.4 will examine MARPOL Annex VI's aim to nevertheless assimilate the two regimes.

37. Before proceeding, it is important to note that references to 'ships' and 'vessels' should be read as references to merchant ships. Warships and other government-owned or operated ships in non-commercial service not only enjoy immunity from coastal State enforcement jurisdiction but are also expressly exempt from the LOSC provisions regarding protection and preservation of the marine environment (Part XII): Articles 32 and 236 LOSC. It is also apposite to deal here with a
miscellaneous point. Article 195 LOSC might be argued to record a general duty upon States to prohibit the use of residual fuel oils in ships' bunkers where the effect of this is to transfer the environmental risks posed by their use from terrestrial to marine media. It provides as follows:

In taking measures to prevent, reduce and control pollution of the marine environment, States shall act so as not to transfer, directly or indirectly, damage or hazards from one area to another or transform one type of pollution into another’.

38. This duty is, however, very broadly worded, and the initial phrase appears to limit its scope to the control of transfers of damage or hazards within the marine context alone.

A4: 2.2.1 The LOSC Balance Between Interests in Navigation and Controlling Pollution from Vessels in General

39. The LOSC provides ‘a comprehensive approach based on the concept of the integrity of global ecological systems and of the global navigation system..., entailing the clear predominance of international rules and standards over national laws and regulations... in respect of standard-setting and enforcement measures relating primarily to pollution from vessels (emphases added)’ (Rosenne and Yankov, 1991, p. 13).

40. States act, in the maritime context, in three different capacities, as flag, port and coastal States.

41. The flag State has primary responsibility for implementation and enforcement of any globally agreed minimum environmental protection standards for ships, including with respect to the conduct of regular ‘statutory’ surveys and certification (Articles 94 and 211(2) LOSC). Flag State jurisdiction is the general rule, to which the LOSC has made only limited exceptions.

42. Treaty provisions on port State control (PSC) inspections have, moreover, been developed as a supplement to flag State control in an effort to provide a second line of defence against the failures of some flag States to adequately enforce international ship safety and ship-source pollution standards. Such provisions appear, for example, in MARPOL; indeed, MARPOL Regs. VI/10 and 11, when in force, will provide for PSC of both emissions violations and of operational aspects (i.e. the familiarity of the master and crew with ‘essential shipboard procedures relating to the prevention of air pollution from ships’). This form of port State jurisdiction ultimately derives from the port State’s sovereign right to impose conditions upon entry to its ports, implicitly recognised in Articles 25(2) and 211(3) LOSC, and discussed in detail below (Section 2.2.6.3). It operates in Europe under the auspices of the 1982 Paris Memorandum of Understanding (MoU) on Port State Control, and in EC ports also under the so-called PSC Directive. The controls in question apply only with respect to ships calling voluntarily at ports and are necessarily limited in their scope, to selective inspections followed, in appropriate cases, by a request to put right deficiencies and only in the case of serious deficiencies detention for repairs and/or the institution of legal proceedings (see further section 2.2.6 below). They are nevertheless a very practical method by which to verify compliance with ship 'construction, design, equipment and manning' (CDEM) standards. Indeed, as CDEM matters travel with the ship and are not in any sense geographically determined, Molenaar argues (1998, p. 95) that
all in-port enforcement of CDEM standards should be regarded as falling under port, rather than coastal, State jurisdiction.

43. This form of port State control, and indeed the normal application of national criminal and other law in port, is to be distinguished from 'true' port State control, such as that provided for in Article 218 LOSC, where the port State is authorised to act on the international community’s behalf in enforcing international discharge standards in respect of violations occurring beyond its waters (a corresponding prescriptive competence is arguably implicit: Molenaar, 1998, p. 108; contra Bodansky, 1991, p. 762). This jurisdiction is, of course, concurrent with flag State jurisdiction. Under paragraph (1) of that Article, a port State may undertake investigations and, where the evidence so warrants, institute proceedings in respect of any ‘discharge’ from a vessel voluntarily in its port or at one of its off-shore terminals occurring beyond its sovereign or jurisdictional waters ‘in violation of applicable international rules and standards’ established by the IMO or ‘general diplomatic conference’. These represent the maximum standards the port State is entitled to enforce. Paragraph (2) places limitations on the right to institute proceedings where the violation occurred in another State’s waters. Paragraph (3) requires the port State, ‘as far as practicable’, to comply with requests to conduct an investigation from the flag State or from a coastal State in whose waters the violation has occurred or has caused or threatened damage. Finally, paragraph (4) requires the records of the investigation to be transmitted upon request to the flag or coastal State, as appropriate, and the transfer of any instituted proceedings themselves upon request to the coastal State where the violation occurred. Port State proceedings are subject too to the possibility of pre-emption by the flag State under the conditions set out in Article 228 LOSC.

44. Article 218 was a novel provision at UNCLOS III, and its status in customary law remains in some doubt. State practice based upon it is, to date, limited, and it is perhaps best seen as binding only as between Parties to the LOSC. There is some evidence, however, that Northern European States take a different view. German and Swedish legislation relies on it to bring criminal proceedings against vessels discharging in breach of MARPOL (special area) standards in waters beyond their jurisdiction: 1980 Swedish Act, as amended; and S. 330 quinter (4) and (5) German Penal Code (StGB), as amended by Article 12 of the 1995 Act. Recommendation 19/16 of the Helsinki-based Baltic Marine Environment Protection Commission (HELCOM) also urges HELCOM Member States to use Article 218 enforcement powers (in respect of violations of MARPOL Annex I, II or V). Dutch law at present only permits the investigation of discharge violations by foreign ships beyond its territorial sea (Article 19(2) 1983 PPSA), but draft amendments, if passed, would extend broad enforcement jurisdiction to such discharges by foreign ships anywhere (Molenaar, 1998, p. 109, note 153). (See also paragraph 9.6 of the ICONA 1993 Statement of Conclusions, concerning Norway’s legislation.) As far as its possible application to ship-source air pollution is concerned, the questions arise whether or not ‘emissions’ can be treated as ‘discharges’ and whether MARPOL Annex VI standards are capable of qualifying as ‘applicable international rules and standards’. That language suggests that the standards in question must have been formally accepted by both States in question, which, of course, cannot yet be true of the new Annex. It must be stressed, moreover, that Article 218 can only be used to enforce globally agreed standards. Its potential utility is greatest in respect of enforcement of the higher MARPOL SOxECA standards in the Baltic Sea. But it is of little or no potential use in respect of an EC ship emissions regime going beyond those standards.
45. A coastal State’s powers to prescribe and enforce environmental protection measures in respect of pollution in general from foreign ships are, as the following paragraphs outline, absent ‘special circumstances’, somewhat limited in respect of its territorial sea and very limited beyond it, and in certain straits used for international navigation.

46. Ships of all States enjoy a broad freedom of navigation beyond territorial waters, i.e. on the high seas and, where coastal States claim them, in exclusive economic zones (EEZs), the breadths of which may extend up to 200 nautical miles from coastal baselines drawn, usually, to follow the low-water line: Articles 58 and 87 LOSC.

47. On the high seas ships are required only to comply with globally agreed minimum environmental protection standards, the enforcement of which is in general a matter for the flag State (Article 217 LOSC). Of course, the flag State is free to apply higher standards, if it wishes. It is not clear whether or not international law permits port or coastal State jurisdiction with respect to discharges (or emissions) committed on the high seas that adversely affect a coastal State’s maritime zones. Molenaar argues (on the basis of the ‘effects’ or ‘impact’ principle of jurisdiction and the intention behind Article 218 LOSC: 1998, pp. 108 and 518-19) that it does, albeit that enforcement measures must be taken in port. McDorman (1997, p. 321) and Bodansky (1991, p. 768) argue that it does not. As to the limitations in this context of the ‘effects’ principle, see the discussion of Sellers v Maritime Safety Inspector, at paragraphs A4/148-49 below).

48. In their EEZs coastal States enjoy jurisdiction as provided for in the LOSC with regard to, inter alia, ‘the protection and preservation of the marine environment’: Article 56(1)(b)(iii). When adopting laws and regulations ‘for the prevention, reduction and control of pollution from vessels’ (in general), however, it must make these conform to and give effect to ‘generally accepted international rules and standards’ (GAIRAS) established through the IMO or diplomatic conference: Article 211(5). Enforcement by the coastal State in port is governed by Article 220(1). Enforcement by the coastal State at sea (i.e. in the EEZ or territorial sea) is closely circumscribed, in particular by Article 220(3), (5) and (6): where there are clear grounds for believing a violation has occurred in the EEZ, the coastal State is generally limited to requiring the vessel to supply information regarding its identity, registry, last and next port of call and other relevant matters; only where that violation has resulted ‘in a substantial discharge causing or threatening significant pollution of the marine environment’, information is not forthcoming or is at variance with the evident facts and the circumstances otherwise justify it, may the coastal State proceed to a physical inspection; and the coastal State may institute proceedings against the vessel, including its detention, only where there is ‘clear objective evidence’ that the violation has resulted ‘in a discharge causing major damage or threat of major damage to the coastline or [its] related interests’ or marine resources. This is also subject to procedural safeguards set out in Section 7 of Part XII. The questions arise whether, if these provisions come to be applied to air pollution, ‘emissions’ are capable of assimilation to ‘discharges’ for these purposes and whether, as seems doubtful, operational air pollution from ships could ever qualify as a ‘substantial discharge’ or a ‘discharge causing major damage or threat of major damage’ in this sense.

49. Six Member States have claimed EEZs, where they assert environmental protection jurisdiction: Denmark, France - in the Atlantic -, Germany, Portugal, Spain - in the Atlantic - and Sweden. Some coastal States (including the UK) prefer...
to declare zones of more limited jurisdiction than a full EEZ, where they nevertheless claim to enjoy environmental protection powers. In addition, the Netherlands is in the process of enacting legislation preparatory to the establishment of an EEZ, and Belgium has environmental protection legislation capable of application to such a zone, were one to be claimed. In 1992, moreover, in response to a Dutch initiative aimed at creating better enforcement opportunities with regard to pollution from vessels, the North Sea States agreed to increase their coastal, as well as port, State environmental protection jurisdiction to the full extent permitted by international law, and their co-operation in this regard: 1992 Paris Declaration. No claims to jurisdictional zones of this type have, however, been made in the Mediterranean Sea, in view of its small size. These zones, together with Member States’ territorial waters, will be referred to in this Study as ‘EU waters’.

50. No Member State appears to have legislated yet in respect of ship-source air pollution in these zones. Nonetheless, the existence of their claims is of potential importance to the control of SO2 (and/or NOx) emissions from ships. This is confirmed by recent surveys by Norway and Liberia, which indicated that 83% and 74% of their flag vessels respectively were found to be within 200 nautical miles of land at given times (IMO docs. BCH 24/INF 28 and MEPC 38/INF 12). Perhaps more significant, given that not all EEZ claims can extend to the full permissible breadth, are our findings that the vast majority of ship emissions appear to arise, in the waters off Europe, within 100 (and, indeed, within 50) nautical miles of the coast (see above Section A2.3.5). The EEZ claims and legislation, and their potential application to the control of ship-source air pollution, are thus subject to fuller discussion below (in paragraph A4/435).

51. In modern parlance ‘territorial waters’ are comprised in the territorial sea and internal waters. The broad legal position in internal waters has been outlined above (at paragraph A4/4). In the territorial sea, which may extend seaward to a maximum breadth of twelve nautical miles, calculated from the coastal baselines, the coastal State enjoys full sovereign powers, subject only to a right of innocent passage for foreign ships. It may: (i) terminate that right only where the conduct of the passage is ‘prejudicial to [its] peace, good order or security’ - and, as far as environmental protection is concerned, the only conduct of a transiting vessel stated to amount to this is an act of ‘wilful and serious pollution’ (Art. 19(2)(h) LOSC - *quaere* whether air pollution can ever amount to this); (ii) for security reasons, temporarily suspend that right in specified areas of the territorial sea (Article 25(3)); and (iii) prescribe national laws and regulations to govern the conduct of passage, including in respect of pollution from vessels (and ship-source air pollution): Article 21 LOSC. Significantly in relation to this Study, the relevant paragraph, (1)(f), refers to the preservation and prevention, reduction and control of pollution of the coastal State’s ‘environment’, i.e. this is not restricted to its marine environment. The coastal State can thus set a ‘zero discharge’ standard, if it wishes. On the other hand, in the interests of uniformity of regulation of international shipping, any such laws and regulations that concern CDEM must give effect to GAIRAS (Article 21(2)); and the coastal State cannot, it appears, adopt national standards where no such GAIRAS yet exist: Hakapää, 1981, p. 194; Ringbom, 1996, p. 20. The characterisation *vel non* of Member States’ air pollution regulations applying in the territorial sea as CDEM, and in particular of any regulations controlling the sulphur content of bunker fuels as ‘design’ or ‘equipment’ standards, is thus of some potential significance: see further below Section 2.2.3.1.
52. As to enforcement, Article 220(1) permits the coastal State to enforce its laws and regulations in port, subject to procedural safeguards set out in Section 7 of Part XII; although it does not specify this, permissible enforcement measures probably include investigation before the institution of proceedings (Molenaar, 1998, pp. 93-94). Articles 27 and 220(2) permit it to carry out enforcement measures in the territorial sea too; it may undertake a physical inspection where there are clear grounds for believing a violation has occurred and institute proceedings, including detention of the vessel, where the evidence so warrants. The same safeguards apply. In addition, the coastal State may not hamper innocent passage, and in particular it may not, in applying provisions of the LOSC or its own laws and regulations, impose requirements on foreign ships which are discriminatory or have the practical effect of denying or impairing the right of innocent passage: Article 24(1) LOSC. There is no reason why GAIRAS in the sense of Article 21(2) could not be regional as opposed to global, at least if they are set at a higher standard than IMO standards. In theory, for example, the EC could develop higher regional standards on CDEM (as it has done for example in relation to passenger vessel safety: see paragraph A4/425 below) and these could become binding on third States’ vessels as GAIRAS; on the other hand, it seems necessary for a degree of acceptance to have developed among those third States before these could be regarded as truly ‘generally accepted’.

53. It should be noted that certain EC Member States have refrained in places from claiming their full entitlement to territorial seas, in order to leave open high seas/EEZ corridors wherein ships can escape the application of the coastal State’s national laws applicable in the territorial sea. Greece has done so in the Aegean Sea, Sweden and Finland have done so in places in the northern Baltic Sea/Gulf of Bothnia, and Denmark, Germany and Sweden in the Kattegat, Great Belt and parts of the Southern Baltic Sea. This practice reduces the legal basis for strong coastal State measures on pollution from vessels (and ship-source air pollution) in those waters.

54. Straits used for international navigation lying entirely within territorial waters, lacking, by definition, a ‘strip’ of high seas down their middle in which foreign ships can enjoy the freedom of navigation, have long been treated as a ‘geographical circumstance’ justifying a modification of the right of innocent passage; in order to help safeguard against unjustifiable interference by the coastal (‘bordering’) States with that right, it has long been expressed to be non-suspendible on security (or other) grounds. Many straits in EC waters continue to be governed by this regime, which for the purposes of this Study are indistinguishable from the territorial sea in general.

55. It appears that, under customary international law, foreign vessels enjoy rights akin to the transit passage regime set out in Part III of the LOSC in at least those straits of particular importance to international navigation, such as the Strait of Dover and, probably, the Strait of Gibraltar: Churchill and Lowe, 1999, pp. 110-13; contra semble Brownlie, 1998, p. 280, and Jia, 1998, pp. 199 ff. It is possible that this might apply in other European straits too, like the Danish Straits (but see infra) and, according to the UK at least, the Northern and Fair Isles Channels. In any event Part III is binding on States Parties to the LOSC as a matter of treaty law. Under that Part, a ship in transit passage is required to ‘comply with generally accepted international regulations, procedures and practices for the prevention, reduction and control of pollution from ships’ (Article 39(2)(b)), although it is not made clear what are the consequences of their failure to do so (apart, perhaps, from any arising from the general provision on State responsibility, in Article 235,
where the failure is attributable to the flag State). The bordering State itself has very few prescriptive and enforcement powers over foreign transiting vessels for environmental protection purposes. The environmental protection laws and regulations that the bordering State may adopt appear from Article 42(1)(b) LOSC to be restricted to those giving effect to ‘applicable international regulations’ regarding the ‘discharge of oil, oily wastes and other noxious substances in the strait’. If this provision were to come to be applied to ship-source air pollution, the following difficult questions arise: (i) can ‘emissions’ be treated as equivalent to ‘discharges’; (ii) what are those ‘applicable international regulations’ (must, for example, MARPOL Annex VI be in force, and/or both the coastal and the flag State in question be a Party to it - cf. Nandan and Rosenne, 1995, p. 375; contra de Yturriaga, 1991, p. 177, and, semble, Treves, 1996a, p. 258 - for it to qualify as such?); and (iii) can air pollutants be regarded as ‘noxious substances’ in this sense? In addition, while Article 220(1) would appear to permit in-port coastal State enforcement of those laws and regulations, Article 233 appears to permit the bordering State to take ‘appropriate enforcement measures’ at sea only where the violation causes or threatens ‘major damage’ to the marine environment of the straits. It is doubtful that operational air pollution could ever be classified as a cause of ‘major damage’ in this sense.

56. The precise legal status of a number of straits in EC waters is, however, not clear. The regimes of certain straits subject to long-standing international agreements, for example, are expressed in Article 35(c) LOSC to remain unaffected by the provisions of Part III of the Convention (cf. Article 25 of the 1958 Convention on the Territorial sea and Contiguous Zone). Somewhat controversially, Denmark, Finland and Sweden have claimed this status for the Danish Straits (cf., in support, el Mor, 1981, p. 53, Caminos, 1987, p. 9; Nguyen, Dallier and Pellet, 1992, pp. 985-86; and Jia, 1998, p. 117-21 and 144). Denmark also claims, somewhat controversially, that the long-standing conventions in question apply as ‘modified’ by long-standing domestic legislation (cf. Alexandersson, 1982, pp. 82-86 and 89; Jia, 1998, ). Sweden and Finland have also claimed it, even more controversially, for the Åvenanrauma Strait. Whether these claims are valid or not, the instruments in question do not appear to relate to environmental protection, which is thus, as a ‘residual’ matter, left to be governed by the relevant norms of customary international law and, in the case of LOSC Parties, Part III LOSC. The claims are thus unlikely to have much, if any, practical effect on an EC ships’ emissions regime. More significant, therefore, are the Greek Declarations, made upon signature and ratification of the LOSC, purporting to establish a special regime in the case of straits lying between ‘numerous spread out islands’. This would, if applied, greatly reduce the number of Aegean straits subject to the transit passage regime; innocent passage would apply instead. The claim has been met with a formal protest from Turkey, and, on the better view, would be inconsistent with the LOSC if applied to straits lying between islands (as opposed to between the Greek mainland and Greek islands): Jia, 1998, p. 142.

57. Finally, provision for ‘special circumstances’ in the LOSC is apparent in respect of ice-covered waters (Article 234), which are irrelevant in the European context (as Baltic ice is not present for ‘most of the year’), and in ‘special areas’ established under Article 211(6), which are of potential relevance, although no such areas have been expressly established in practice. The Community might wish to encourage (or possibly, within the limits of its competence, require) Member States to apply for Article 211(6) special area status for sea areas in their EEZs where ship-source air pollution is a particular problem. In our opinion, however, this approach is unlikely to be fruitful.
58. Article 211(6)(a) permits a coastal State, following submission to the IMO, and if the IMO 'so determines', to adopt laws and regulations applicable to 'particular, clearly defined' areas of their EEZs where the international standards are inadequate to meet 'special circumstances' and 'special mandatory measures' are necessary (on a number of specified grounds) for the prevention of pollution from vessels. These may be 'for the prevention, reduction and control of pollution from vessels implementing such international rules and standards or navigational practices as are made applicable, through the [IMO], for special areas'.

59. It might be argued from this provision's ambiguous language that IMO's permission is not required for the choice and application of the specific measures (Hakapaää, 1981, p. 254; semble Ringbom, 1996, p. 31), but the better view is that its approval is needed: cf. Molenaar, 1998, pp. 405-06. UNCLOS III appears to have had in mind the first instance the possibility of States applying in these waters the standards applicable to MARPOL special areas, established under Annexes I, II, IV or V (Timagenis, 1980, p. 612, note 73). Article 211(6)(a) thus represents at least the possibility that such standards, which hitherto have been applied mainly to semi-enclosed sea areas, such as the Baltic, Mediterranean and North Seas, may become applicable to parts of EEZs in other waters, such as the more open waters of the North-East Atlantic Ocean. It seems reasonable to accept, indeed, that the measures can be adopted in appropriate areas between 12 and 200 nautical miles offshore even in the absence of a formal EEZ claim; for an argument that areas of territorial sea can be included too, see Molenaar, 1998, p. 402.

60. The language is, however, broad enough, as the IMO recognises (see IMO Study, 1997) to permit the IMO to 'make applicable' to such areas, not merely MARPOL special area standards, but any sort of standard aimed at prevention of pollution from ships. Indeed, the provision has been recognised as a possible legal basis for (further developing the concept of and) taking enhanced protective measures in IMO-identified Particularly Sensitive Sea Areas (PSSAs)(IMO doc. MEPC 33/INF.27), where MARPOL discharge standards are just one of the sorts of special protective measures in view (see IMO Res. A.720(17), Annex, paragraphs 3.1.3 and 3.8.3, as amended by Res. A.851(21)). It follows, prima facie, that Article 211(6) special areas are of potential utility (as is the PSSA concept) in establishing high regulatory standards on ship emissions in areas of EC waters where 'special circumstances' prevail. This is quite apart from the provisions of MARPOL Annex VI on special areas (i.e. SOxECAs). Two questions remain, however: (i) whether, given that the paragraph appears in the article (211) that governs pollution from vessels in general (and not specifically air pollution), the language is broad enough to cover ship emission standards (see the next paragraph); and (ii) whether, in any event, the adoption of an Article 211(6) air pollution special area is procedurally possible. Not only has the IMO not yet adopted procedures for the designation of such areas or guidance on standards to be applied in them, but it is likely to redirect an application to the specific MARPOL Annex VI SOxECA procedure.

61. At the same time as acting under sub-paragraph (a) of Article 211(6), the coastal State may, under sub-paragraph (c), adopt 'additional laws and regulations for the same area for the prevention, reduction and control of pollution from vessels', which may be applied to foreign vessels only with the IMO's agreement. These, it seems, may be national (rather than IMO-developed) standards but may only relate to 'discharges or navigational practices', and must reflect GAIRAS if they relate to 'CDEM' matters. The question arises whether or not 'emissions' standards can be treated as 'discharge' standards, and GAIRAS, for this purpose. That they cannot,
except by virtue of MARPOL Reg. VI/11(6), is argued below (in Sections 2.2.3 to 2.2.5).

62. To complete the provisions on Article 211(6) special areas, Article 220(8) provides that the same, restrictive, provisions on enforcement at sea as apply elsewhere in the EEZ apply also in Article 211(6) special areas. The Netherlands appears, however, to have argued to the opposite effect: 1994 Paper.

63. In addition, disputes concerning measures taken to control pollution from vessels (and ship-source air pollution) in EU waters are in principle subject to the Part XV dispute-settlement procedures binding on States Parties to the LOSC.

64. In conclusion, it can be said that the main international standards referred to in Article 211 LOSC concerning pollution from vessels in general are MARPOL standards. These (or at least Annexes I and II) equate to the GAIRAS, that represent, as far as flag States are concerned, mandatory minimum standards. These standards are mandatory even for flag States not Parties to MARPOL, because of the ‘indirectly binding effect’ of the rules of reference to them in the LOSC: by consenting to be bound by the LOSC, the State consents to be bound by those standards too (see Molenaar, 1998, esp. pp. 157-58). It should be noted that GAIRAS can involve higher regional standards in sea areas where these have been adopted by the IMO, notably MARPOL (Annex I and II, and perhaps V) special areas. In relation to coastal State jurisdiction, however, they represent in respect of foreign vessels, facultative maximum standards with regard to CDEM standards in the territorial sea and to all standards in waters beyond (and in straits used for international navigation with respect to ships engaged in transit passage): Molenaar, 1998; Ringbom, 1996. In other words, if coastal States enact legislation governing pollution from vessels in general, they are entitled to exceed MARPOL standards only in the territorial sea and even there only in relation to non-CDEM standards.

A4: 2.2.2 The LOSC Protects the ‘Marine Environment’

65. One of the LOSC’s strengths over earlier instruments is the comprehensiveness of its approach, seeking as it does to deal with all sources of pollution of the marine environment (emphasis added)’ (Article 194(3)). Air pollution from vessels appears to be capable of falling within the definition of ‘pollution of the marine environment’ given in Article 1(4) LOSC, notwithstanding that it is the air above the sea that is polluted in the first instance, and the sea itself is polluted only subsequently through deposition. This is because that definition includes the indirect introduction of deleterious substances into the marine environment. This conclusion is perhaps confirmed by the listing of the minimisation of ‘the release of toxic, harmful or noxious substances... from or through the atmosphere’ among the measures required (by Article 194(3)(a)) to be taken to deal with all sources of pollution of the marine environment. It is also confirmed, specifically with regard to vessels, by Article 212(1), which requires States to adopt laws and regulations to prevent, reduce and control pollution of the marine environment from or through the atmosphere, applicable to.. vessels flying their flag or... of their registry’, and by Article 222, which requires them to enforce those laws with regard to the same vessels.

66. The fact that the LOSC’s main environmental concern is with the marine environment (albeit that Article 21(1)(f), as has been mentioned, is expressed in broader terms) does not rob it of its utility in respect of measures to protect terrestrial environments. The aim of an EC ship emissions regime would, of
course, be primarily to reduce acidification on land, and ‘The LOSC does not address the problem of pollution of or through the atmosphere which does not cause pollution of the marine environment’: Molenaar, 1998, p. 500, note 4; cf. Rosenne and Yankov, 1991, p. 319. On the other hand, the EC also has a clear interest in protecting its marine environment from the polluting effects of ships’ emissions, which are demonstrated in Appendices 2 and 6 (particularly Table 6.5) to be greater at sea than on land. In addition, a helpful degree of vagueness surrounds the term ‘marine environment’, which is not defined in the Convention. The above-mentioned definition of ‘pollution of the marine environment’ does specify that it includes estuaries; thus it can perhaps be understood to include at least those open bodies of water subject to tides (up, one presumes, to the shoreline) and the biological communities dependent thereon, including those whose ranges include the adjacent coastline, superjacent air and subjacent seabed and sub-soil.

67. That the superjacent atmosphere itself is distinct is suggested by its separation from the ‘marine environment’ in the wording of Articles 194(3) and 212 (it would appear strange to consider the marine environment to be capable of pollution from or through a constituent element of itself). There is, on the other hand, some support for the view that the ‘marine environment’ includes the superjacent atmosphere: Rosenne and Yankov, 1991, pp. 42-43; and Molenaar, 1998, p. 499. The latter refers to proposals made by Malta and Kenya at UNCLOS III for definitions of ‘marine environment’ that included the air space superjacent to the sea, although air space is not directly capable of assimilation to atmosphere or air mass: see paragraph A4/31 above). It is thus arguable that controls aimed at protecting the atmosphere above EC waters from ship-source pollution are capable of being ‘marine environmental protection’ measures authorised under the LOSC. Be this as it may, given that the air mass is not stationary, that there is difficulty in distinguishing ship-source emissions that are likely to pollute the terrestrial atmosphere from those likely to pollute only the marine atmosphere and environment, and that it is hard to distinguish between the effects of measures aimed to tackle one rather than the other (especially if the latter is given the broad sense argued for), measures taken pursuant to Part XII of the LOSC aimed at protection of the marine environment in EC waters will necessarily have an (unobjectionable) impact on the EC terrestrial atmosphere too.

68. Part XII suffers, however, from a perhaps more significant limitation, hinted at above, that, while it represents a well-established and reasonably effective regime for controlling vessel-source pollution in general, it appears to establish only a loose framework regime for vessel-source air pollution. The consequences of this, taking the LOSC alone, are discussed in the following Section. The modifications apparently effected by MARPOL Reg. VI/11(6) are described in the Section after it.

A4: 2.2.3 The LOSC Regime Governing Air Pollution from Ships

A4: 2.2.3.1 Emission or CDEM Standards?

69. Only very recent works have dealt in detail with the international law of ship-source air pollution, notably Molenaar, to whose 1998 work, Coastal State Jurisdiction over Vessel-Source Pollution, therefore, frequent reference is made. He succinctly describes (at p. 21) the nature of emission standards, as follows: ‘Emissions standards are not specifically referred to in the LOSC but should for jurisdictional purposes be regarded as similar to discharge standards due to the nature of their environmental impact (emphasis added)’. We emphasise the phrase ‘jurisdictional purposes, because it does not follow that, wherever, the word
‘discharge’ appears in the LOSC, one can add the term ‘emissions’. Molenaar continues, ‘Like discharge standards, emissions standards are directly aimed at regulating the amount of substances that enters the marine environment (emphasis added)’. This is an acceptable definition, at least if ‘directly’ is not too narrowly defined (see the next paragraph). Two practical differences between discharges and emissions might, however, affect the legal position in reality. First, emissions are likely to be continuous, absent engine breakdown or stoppage for other reasons at sea, from the starting of the engines in one port until they are shut down, if at all, in another, whereas operational discharges will generally be permitted (and take place) only at sea and for limited periods during the voyage. Second, pollution through discharges, especially of oily waste and garbage, is likely to be more easily detectable by eye than that through emissions.

70. Molenaar then distinguishes discharge and emission standards from CDEM standards: ‘Conversely, CDEM standards either provide methods by which discharge [and, one presumes, emissions] standards can be met, or aim at avoiding incidents that may adversely affect the marine environment’. He suggests (at p. 67) that the ‘regulation of the sulphur content in fuel oil and fuel oil quality must be regarded as an equipment [and thus a CDEM] standard, as it concerns a requirement to ensure that an emission standard is met’ (see also pp. 432 and 511). Implicit in this is the argument that a sulphur content regulation is not a standard directly controlling emissions at the point of release, but merely a method by which to achieve this. The following objections can be made. First, this sort of standard can be said to aim ‘directly’, in the sense he uses the term, at the reduction of emissions in the sense he uses it, because of the direct correlation between fuel sulphur content and SO2 emissions. Second, the Article 21(2) reference to CDEM standards being an exception to the general principle of coastal State sovereignty in its territorial sea, there is a presumption in favour of narrowly construing it. It would be strange, in the light of this, to treat as a a ‘design’ or ‘equipment’ standard, a requirement that does not necessarily require a particular engine or exhaust system design or involve the fitting or use of any additional equipment: it might involve some modification of engines or their operation in order to adapt to lower sulphur contents and/or the fitting of separate tanks to hold low-sulphur fuel for use only in areas where such a requirement applies. In practice, however, the latter is unlikely to be cost-effective (see above pp. ) and the former is only likely to occur where low-sulphur fuel is used for extended periods. In fact, no particular construction, design, equipment or manning changes at all need be made, and this is arguably a pre-requisite to classification as a CDEM standard.

71. On the other hand, CDEM standards are also referred to in Article 211(6)(c), where no such interpretative presumption can be said to apply. Perhaps, in addition, it is more accurate to say that Molenaar means to argue that a sulphur content regulation should be treated as analogous to a CDEM standard, because it travels with the ship. He is, after all, more equivocal at p. 22 of his book, where he lists, under the heading ‘Discharge and Emission Standards’ ‘specified fuel contents’ among the various approaches by which emissions standards may be achieved. In these circumstances, it can be argued that the term should be interpreted broadly, at least in its application beyond territorial waters, because it is particularly desirable on policy grounds to limit the extra-territorial effect of national standards where they relate to matters that ‘travel with the ship’, and to ensure that international (and preferably global) standards apply to such matters. It is, however, debatable to what degree such a standard really travels with the ship.
Much depends on each ship’s bunkering strategy, formed in response to the requirement.

72. On balance, in our view an EC measure limiting the sulphur content of marine bunkers should be seen as an emission standard, which has merely consequential (and often very minor) effects on CDEM matters. It might, alternatively, be viewed as an emission standard within territorial waters and a CDEM standards beyond. We do not, however, favour this intellectually unsatisfying, and essentially contextually-derived, proposition.

73. That it is an emission standard is arguably recognised in MARPOL Annex VI, where SOxECAs are defined as areas where the adoption of special mandatory measures for SOx emissions from ships is required (emphasis added)’ (Reg. VI/2(11)) and the fulfilment of a requirement restricting the sulphur content of fuel oil to 1.5% or less is then listed (in Reg. VI/14(4)(a)) as one method (and indeed, we have argued, the only likely method to be pursued) by which to achieve this.

74. Of course, this argument is only strictly applicable to fuel content standards where there is a direct correlation between the fuel content and the emissions. The same argument could obviously not be made in respect of the nitrogenous content of bunkers and NOx emissions. Thus a sulphur content of fuel oil requirement is, in our view, the only fuel content requirement to be properly classified as an emissions rather than a CDEM standard.

75. Indeed, as far as other methods of regulating SO2 or NOx emissions are concerned, the close relationship between the achievement of the specified reductions and the technical innovation required to permit this renders the application of both ‘emissions’ and ‘equipment’ (the ‘E’ of ‘CDEM’) standards essential (Molenaar, 1998, p. 24). In addition, the proper functioning of the technology is intimately related to the familiarity of the crew with essential operating procedures, the so-called operational requirements. This might be argued to be an aspect of ‘manning’ (the ‘M’ of ‘CDEM’), although it is really the result of the growth in IMO’s concern about the role of the ‘human factor’, as opposed to regulation, in achieving safety and environmental protection. Molenaar clearly considers requirements on the ‘replacement or modification of diesel engines’ and the fitting of exhaust gas cleaning systems to be CDEM standards (p. 67). If, as appears to be the case, these and other forms of regulation are better classified as such, the possibility of applying national standards in EC waters disappears. On the other hand, as noted above, compliance with those standards is more easily verified in port than at sea. Reference should, therefore, be made to the discussion on port State jurisdiction below.

A4: 2.2.3.2 Ships’ Emissions and Maritime Zones

76. Paragraph (1) of Article 212 LOSC requires States to ‘adopt laws and regulations to prevent, reduce and control pollution of the marine environment from or through the atmosphere, applicable to the air space under their sovereignty [i.e. including territorial waters, but not EEZs] and to vessels flying their flag or .. of their registry’. It is thus addressed to both flag and coastal States. Paragraph (2) requires them to ‘take other measures as may be necessary’ too; this should be read with, and in the context of, paragraph (1): Rosenne and Yankov, 1991, p. 319. In addition, paragraph (3) requires States to ‘endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution’, acting especially through the IMO or diplomatic conference. It will be recalled, however, that, in adopting the laws and regulations under
paragraph (1), States need merely take these ‘into account’. Finally, and strangely for a corresponding provision on enforcement, Article 222 requires States to ‘adopt laws and regulations and take other measures necessary to implement applicable international rules and standards established through the competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment from or through the atmosphere’. It appears that ‘applicable’ means formally accepted by the coastal State and the flag State in question. Interesting to note too is the use of the plural ‘international organizations’, which suggests that other bodies than the IMO were in UNCLOS III’s collective mind.

77. Far from representing mandatory minimum prescriptive standards for flag (and port) States and facultative maximum standards for coastal States, the vague formulae in Articles 212 and 222 provide only a (in the words of Molenaar, 1998, p. 501) ‘“mildly” mandatory’ minimum standard for flag, port and coastal States alike, and give little guidance on the minimum standard to be aimed at. Nowhere, moreover, does Article 212 require conformity with relevant GAIRAS, if any exist. It does not have, therefore, any ‘indirectly binding’ effect upon States that are Parties to the LOSC but not to the treaties establishing GAIRAS.

78. As to enforcement, Article 222 provides, in relevant part, ‘States shall enforce, within the air space under their sovereignty or with regard to vessels flying their flag or.. of their registry, their laws and regulations adopted in accordance with article 212, paragraph 1, and with other provisions of this Convention”; unlike Articles 220 and 233, this does not tell States how to exercise their enforcement jurisdiction. A broad discretion appears to be left to States.

79. This broad discretion does not, however, provide a broad legal base for far-reaching EC ship emissions measures. It is clear that the coastal State’s obligation under Article 212 to prescribe laws and regulations does not extend beyond the territorial sea. Article 222 similarly only requires of them enforcement ‘within the air space under their sovereignty’. It cannot be concluded that coastal States are thus left free to prescribe and enforce national air pollution standards in the EEZ, for example on the basis of the general duties in Articles 192-94 or of Article 56(1)(b)(iii). ‘Article 212 must be considered a lex specialis in relation to [those provisions,] if the coastal State intends to apply legislation to foreign ships’: Molenaar, 1998, p. 502. To suggest otherwise would be to permit the coastal State to prescribe higher standards in its EEZ than in its territorial sea and to contradict the established principle that international standards should prevail in the EEZ. The position on the high seas is, of course, that of undiminished flag State control.

80. Even in the territorial sea, moreover, if, as appears to be the case, Article 21(2) prevails over Article 212, the coastal State’s air pollution laws and regulations should not exceed GAIRAS, if any exist, in respect of CDEM standards. This does not prevent the passage of legislation on emissions which only incidentally affects CDEM matters. If, therefore, as is suggested above, standards on the sulphur content of marine bunkers are emissions standards, it appears that Member States are entitled to set them at national levels in their territorial seas, but it is at least arguable that other forms of regulation aimed at reducing emissions there are restricted to such GAIRAS as exist, if any. It is unlikely, moreover, that polluting emissions from a ship can amount to an act of ‘wilful and serious pollution’ so as to permit the coastal State full enforcement powers, including terminating its passage through its territorial sea, under Article 19(2)(h) (sed contra Molenaar, ibid.).
81. The position on coastal State enforcement is, therefore, the same as with pollution from vessels in general, except that in-port enforcement by the coastal State against ships voluntarily present is limited to that in respect of violations occurring in the territorial sea. In addition, the Article 220(2) pre-condition for inspection in the territorial sea of ‘clear grounds’ for believing a violation has occurred does not appear to be applicable, since that Article applies only to ‘pollution from vessels’. This apparent anomaly might be argued to be removed by the general duty, under Article 24, upon coastal States not to hamper innocent passage (cf. Molenaar, 1998, p. 504), albeit that, if this is the case, the specific requirement in Article 220(2) would appear to be, strictly-speaking, superfluous. If this is so, however, it is difficult to imagine when a coastal State could arrive at such ‘clear grounds’ in a case of air pollution. In addition, the safeguards provided by Article 226 surrounding the investigation of foreign vessels under Articles 216, 218 and 220 would appear to be inapplicable, as Article 226 does not mention Article 222 too. Molenaar suggests (at p. 505) that ‘it seems not unreasonable to argue that the basic elements of Article 226 apply mutatis mutandis to pollution from or through the atmosphere’, given that the omission was likely to be the result of the undeveloped nature of international controls in the field at the time of UNCLOS III. This seems acceptable, especially as the language of the provision is not tied to ‘pollution from vessels’ or ‘GAIRAS’. It also seems desirable on first principles to apply procedural safeguards to prevent any abuse of coastal State jurisdiction.

82. As to straits, the ‘generally accepted international regulations, procedures and practices’ with which ships in transit passage through straits are required to comply (under Article 39(2)(b)) are those relating to the control of ‘pollution from ships’ (i.e. Article 211 pollution), which appears to exclude air pollution. Molenaar argues (at pp. 502-03) that the language is also sufficiently close to ‘generally accepted international rules and standards’ (‘GAIRAS’), conformity with which, it has been stated, is not required by Article 212, to suggest that even such global air pollution standards as exist are not within the contemplation of Article 39, but it does not follow, simply because Article 212 does not have an ‘indirectly binding’ effect, that MARPOL Annex VI cannot, when in force and widely adhered to, come to represent ‘generally accepted international regulations’ in the Article 39 sense.

83. It can be argued, moreover, that bordering States may, consistently with Article 42(1)(b), prescribe laws and regulations governing air pollution from ships in transit passage only if ‘emissions’ can be equated to ‘discharges’, if the emissions can be said to be of ‘noxious substances’ (cf. Article 194(3)(a)) and if ‘in the strait’ can be understood to mean through the superjacent atmosphere into the waters of the strait. This seems possible, at least where Annex VI has come into force and applies as between the States in question (contra semble Molenaar, 1998, p. 502, who regards the enumeration as too specific; this might, however, be because its scope is limited, as regards discharge standards, to MARPOL Annexes I and II: ibid., p. 520). Such measures could be enforced in port, consistently with Article 220(1). In order to take at sea enforcement measures, however, the coastal State would have to establish that the emissions in question cause or threaten ‘major damage’ to the marine environment of the straits. This appears to be an exceedingly difficult hurdle to cross.

84. ‘No indication exists that the LOSC special areas provision in Article 211(6) is intended to be used for pollution from or through the atmosphere’: Molenaar, 1998, p. 503. Given the restriction of Article 212(1) to sovereign air space, it would be very surprising if it did. It has already been noted, moreover, that Article 211(6)
appears in the article dealing with ‘pollution from vessels’, and not, like the other ‘special circumstances’ provision, Article 234, in a separate section of Part XII. It seems, therefore, that it cannot on its face be applied to air pollution.

85. The position of flag States is similar to that with respect to pollution from vessels. Port States too enjoy the, in principle, unrestricted jurisdiction over vessels voluntarily in their ports described below (in Section 2.2.6); they do not, however, enjoy Article 218 jurisdiction, as it is limited to discharge violations.

A4: 2.2.3.3 Conclusion

86. Under the terms of the LOSC, therefore, an EC ship emissions regime could, with reasonable confidence, include a regulatory approach to the sulphur content of bunker fuel going beyond MARPOL Annex VI standards that extended to the control of bunkers in use by ships in Member States’ internal waters and territorial seas. The possibilities for enforcement at sea are, however, limited, and the better approach would perhaps be through co-ordinated in-port enforcement, along the lines discussed below (in Section 2.2.6).

87. There remains, however, the possibility of a stronger global ‘baseline’ than that presented above, which derives ultimately from the growth in concern for the environment since the negotiation of the LOSC and, in particular, the recent emergence of concern about ship-source air pollution.

A4: 2.2.4 The Regime for Coastal States Parties to MARPOL: the effect of Reg. VI/11(6)

88. Following a US proposal to incorporate a reference to the LOSC, and despite Norwegian scepticism (MEPC 39/6/10 and 14 and 39/13), a paragraph (6) was added to what became MARPOL Reg. VI/11, as follows:

> 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.

89. This provision, appearing as it does in the provision on detection of violations and enforcement, which is otherwise virtually identical to MARPOL Article 6, appears to concern the allocation of jurisdiction. MARPOL had previously avoided jurisdictional questions; Article 9(3) had referred these to general international law. Reg. VI/11(6) supersedes this, as a lex specialis. It appears to mean that, at least as between States Parties, MARPOL Annex VI will be governed by the well-established and detailed regime of jurisdiction applying to pollution from vessels in general, in preference to the undeveloped one on pollution from or through the atmosphere. The term ‘discharge’, moreover, should be read to include ‘emissions’.

90. The effect of this appears to bring, at least as between States Parties to MARPOL Annex VI (when it is in force), the law closer to the position described in Section 2.2.1 above. But differences remain. In particular, those States Parties will, it seems, be bound, under MARPOL Article 4(2), to prohibit and establish sanctions for any violations of Annex VI occurring within their jurisdiction. Coastal States will not thus revert to a mere facultative maximum prescriptive jurisdiction (normal under the LOSC), but will be required to take measures in their territorial seas and EEZs (normal under IMO regulatory conventions). In addition, the observations
made above, that it is harder to establish 'clear grounds' and the like for emissions than for discharges, remain valid.

91. The main change that will thus arise, at least as between States Parties to MARPOL Annex VI, is that coastal States will be able (not required, as the Article 222 obligation does not extend to the EEZ), along the lines of Article 211(5), to prescribe ship-source air pollution laws and regulations for their EEZs, 'conforming to and giving effect to' GAIRAS, a concept that will now be directly relevant to air pollution for the first time. The question arises, therefore, whether and when MARPOL Annex VI will come to represent GAIRAS (including, in the Baltic Sea at least, in respect of SOxECAs). It has been suggested above (at paragraph A4/27) that State practice does not in general support the view that States take into account anything other than that instruments have entered into force in determining what are GAIRAS (which suggests that the Annex cannot yet be GAIRAS: contra semble Molenaar (1998)). This appears to be true of Greece, among others: Article 1(o) 1977 Law. The one apparent exception is the UK, which has taken powers 'to make provision for the purpose of giving effect to an agreement [including the] power to provide for the provision to come into force although the agreement has not come into force' (S. 85(1B) 1995 Act), but this is intended only to apply where there is an instrument of provisional application of the treaty in question (comment by D. Anderson, in Molenaar, 1998, p. 178, note 148). It follows that, if the Commission wishes to propose a ship emissions regime regulating the sulphur content of bunker fuels in EU waters beyond the territorial sea, it should encourage at least those coastal Member States not already engaged in preparations to do so to ratify the 1997 MARPOL Protocol (to which Annex VI is annexed) as soon as possible.

92. In addition, laws and regulations implementing international ship-source air pollution standards made applicable, through the IMO for Article 211(6) special areas in EEZs might, in principle, be adopted in such areas, together with (in parallel with sub-paragraph (c) of that Article), additional laws and regulations relating to 'emissions'. The at-sea enforcement powers set out in Articles 220(3), (5) and (6) will apply to laws and regulations made under either sub-paragraph; it will, however, be difficult to establish 'clear grounds' to believe an emissions violation has occurred, that there have been 'substantial [emissions] causing or threatening significant pollution' or to obtain 'clear objective evidence' of '[emissions] causing major damage or threat of major damage'. In-port enforcement, under Article 220(1) is thus to be preferred. It is also, in consequence, made clearer that the Article 226 safeguards concerning the investigation of foreign vessels apply. The duty on ships in transit passage, under Article 39(2)(b), to comply with generally accepted international regulations, procedures and practices for the prevention, reduction and control of [emissions] will also apply mutatis mutandis.

93. Finally, port States Parties to MARPOL will, it appears, enjoy inter se jurisdiction along the lines of Article 218 in respect of emissions violations occurring beyond their waters, but only in relation to MARPOL Annex VI standards, and not to any higher EC standards: see paragraph A4/44 above.

94. MARPOL Reg. VI/11(6) appears consistent with the LOSC at least in so far as it is applied between States Parties to it inter se. Obligations created under it can, it appears, be 'carried out in a manner consistent with the general principles and objectives of [the LOSC]' in conformity with Article 237 LOSC. Rights enjoyed under it would not appear to be incompatible with the effective execution of the
object and purpose of [the LOSC], nor affect the application of its basic principles or States’ rights or obligations under it, contrary to Article 311 LOSC (see further paragraph A4/105 below). MARPOL Annex VI should, however, be notified as an agreement inter se to other LOSC Parties, under Article 311(4) LOSC.

**A4: 2.2.5 Scope for Broader Interpretations of Customary International Law, the LOSC and MARPOL Reg. VI/11(6)**

95. As an ‘umbrella’ convention, employing rules of reference to more detailed (and evolving) standards than it could comfortably accommodate in a single text, the LOSC has left to the IMO much detailed regulation in the field of ship-source pollution, a rapidly evolving area where standards need frequent updating: the adoption of novel ship-source air pollution standards is a perfect example. The LOSC was thus not intended to be an entirely static instrument, and the very act of granting the IMO regulatory power foresaw and sanctioned some degree of adjustment to the navigation/environment balance established by it, albeit an adjustment within the framework it established. The question is to what degree is the IMO permitted to adjust, and has it adjusted, this navigation/environmental protection balance. In particular in relation to air pollution from ships, has the IMO become a ‘universal legislator’ of the international standard expected to be applied to all ships, and is it entitled to alter, and has it altered, the navigation/environment balance established in the LOSC either to ‘fill a gap’ (in the case of a *casus omissus*) or to permit the exercise of coastal State jurisdiction in a situation not specifically envisaged during UNCLOS III? In addition, while clearly influenced by the provisions of the LOSC, State practice has not always followed them exactly. Whether this is out of an unwillingness or an inability to follow certain of the more complex LOSC formulae, an attachment to pre-existing ‘territorialist’ notions of national maritime zones or other dissatisfaction with the navigation/environment balance, this divergence of practice from the Convention’s terms gives some scope for reassessing the analysis of the state of customary international law made in Section 2.2.1 above. In the context of ship-source air pollution, for example, is it permissible to argue that MARPOL Reg. VI/11(6) creates rights and obligations *erga omnes*, and not merely for Parties to it? Related to this is the question whether or not a broader interpretation of these treaties than that given above *qua* treaties is permissible.

**A4: 2.2.5.1 A teleological and/or flexible view of the LOSC**

96. There is a measure of disagreement on the goals of treaty interpretation. Sir Ian Sinclair (1984, pp. 114-15) lists three possible goals, each supported by equally impressive authorities, and each reflected to some degree in Articles 31 and 32 of the (largely codificatory) 1969 Vienna Convention on the Law of Treaties: the so-called objective, subjective and purposive, or teleological, approaches.

97. The teleological approach is difficult to apply where there is no single, undiluted object and purpose to a treaty, but a variety of different and possibly conflicting objects and purposes. Nevertheless, at least two leading authorities (Oppenheim (1992), p. 1270; Brownlie (1990), pp. 631-32) consider its application to be appropriate to the interpretation of treaties of a ‘constitutive’ or ‘constitutional’ character, such, it might be argued, as the LOSC. Indeed, the ICJ has supported this approach, albeit within carefully circumscribed limits. According to the majority in the *Namibia* Advisory Opinion, ‘an international instrument has to be interpreted and applied within the framework of the entire legal system prevailing at the time of the interpretation (emphasis added)’. On the other hand, Judge Levi in his Concurring Opinion in the *Ecrehos and Minquiers* Case says the opposite: ‘an
instrument must not be appraised in the light of concepts that are not contemporary with it'.

98. If one tries to reconcile the two, one is left only with the 'narrow and limited proposition that the evolution and development of the law can be taken into account in interpreting certain terms in a treaty which are by their very nature expressed in such general terms as to lend themselves to an evolutionary interpretation', as long, that is, as this does not conflict with the expressed intentions of the Parties at the negotiation (Sinclair, 1984, p. 140).

99. A teleological approach to interpretation of the LOSC observing these limitations permits Oxman (1991, p. 27) to argue, for example, that any LOSC requirement for IMO approval of a measure designed to meet what is argued to be a 'special circumstance' supplies a sufficient procedural safeguard for the protection of the international interests concerned, even, it seems, where the measure involves a broad adjustment to the LOSC navigation/environment balance. On this view, 'special circumstances' are not limited to those covered by Articles 211(6) and 234 LOSC, as a literal reading of the text seems to suggest. In respect of the straits transit passage regime, for example, he considers Article 41 to provide such a procedural safeguard. He thus asks 'everyone to interpret broadly what the coastal state can propose and what IMO can approve, because the key protection [against excessive coastal State claims] is the procedure itself'. He adds that 'there is clear precedent [the special under-keel clearance rule in the Malacca/Singapore straits] that what is meant in article 41 by traffic separation schemes and sea lanes is to be interpreted broadly'.

100. Oxman's argument might be persuasive, at least in relation to this one LOSC provision, but should not be read to permit entirely unilateral claims inconsistent with the express provisions of the LOSC based on a claimed application of the concept of 'special circumstances'. The key proviso to its application even on Oxman's view is the consent of the international (maritime) community, as embodied in the IMO, to the measures to be taken.

101. To underline this point, the USA issued a protest against paragraph 7 of Spain's Declaration upon Signature of the LOSC, which provided that Spain 'considers that Article 233 must be interpreted, in any case, in conjunction with the provisions of Article 34'. Article 34 provides that 'The regime of passage through straits used for international navigation established in this Part shall not in other respects affect the legal status of the waters forming such straits or the exercise by the States bordering the straits of their sovereignty or jurisdiction over such waters. [which] is exercised subject to [Part III - and note that Article 233 does not appear in Part III] and to other rules of international law (emphasis added)'. The USA apparently saw Spain's intention to have been to unilaterally circumvent the restrictions imposed on at-sea coastal State enforcement by Article 233, without seeking international agreement to this. Spain's modified Declaration upon Ratification is only slightly less objectionable in these terms. Paragraph 3(a) of this records Spain's understanding that:

The regime established in Part III of the Convention is compatible with the right of the bordering State to enact and enforce in straits used for international navigation its own regulations, provided that such regulations do not interfere with the right of transit passage.

102. This is unlikely to prove any more acceptable to the USA, nor indeed to other States with strong maritime interests.
103. The strongest expressions by States of the argument in favour of a very flexible (teleological?) view of the LOSC were made by Argentina and several other concerned coastal States at a 1996 meeting of the IMO’s Legal Committee. They were in favour of the IMO’s adopting ‘routeing restrictions’ for (in fact effective exclusion from territorial waters and EEZs of) ships carrying highly radioactive cargoes. Such restrictions were, in their opinion:

justified on the basis of the rights of coastal States acknowledged in the LOS Convention to adopt special measures to protect vital coastal interests and the marine environment under their jurisdiction. The provisions of the LOS Convention should not be interpreted as obstacles for the adoption of preventive measures of a general kind. Instead they should be considered as providing a framework for flag and coastal States to reconcile potentially conflicting interests. In this regard, the principle of freedom of navigation could not be upheld at the expense of the equally legitimate rights of coastal States to protect their interests and resources. The changing circumstances which had occurred since the adoption of the LOS Convention in 1982... provided sufficient reason for States to continuously reassess the way in which the freedom of navigation and the right of innocent passage should be exerted, bearing in mind the increasing threat posed to coastal States and the marine environment generally, by the transport of [hazardous] material (IMO doc. LEG 74/13, paragraph 100).

104. It should be emphasised, however, that this statement related strictly to an environmental threat perceived by those States to be of unusual proportions, the carriage of cargo covered by the IMO’s 1993 Code for the Safe Carriage of Irradiated Nuclear Fuel, Plutonium and High Level Radioactive Wastes in Flasks on Board Ships. It was strongly opposed, even in that specific context, by a number of States, including EC Member States, concerned to preserve the freedom of navigation from such restrictions. It is thus highly unlikely that those same Member States would countenance employing such an argument themselves, in order to favour the adoption of strong off-shore measures in relation to ship-source air pollution (where there is much less risk of the occurrence of major harm, although harm is much more likely to occur).

105. In any event, the degree to which the IMO can modify the navigation/environment balance is limited by the LOSC provisions on its relationship with other treaties. Article 311 LOSC governs in general the relationship between the LOSC and other conventions, and a separate article, Article 237, specifically governs that between it and obligations assumed under other conventions on the protection and preservation of the marine environment. The latter uses slightly more liberal language than the former, but, as has been seen, both, in general, restrict the performance of obligations (and Article 311 the enjoyment of rights) under other treaties to cases where this is compatible with the objects and purposes of the LOSC, and the application of its principles. IMO considers these Articles to give it a strong mandate to adopt and amend rules, but only on matters within its competence (see also paragraph A4/94 above).

106. It has been suggested, nevertheless, that the IMO, through an increased involvement in jurisdictional matters, has significantly altered the navigation/environment balance. The recent amendments to SOLAS 1974, adding a new Reg. V/8 and V/8-1 (concerning mandatory routeing schemes and ship reporting systems), for example, represent a new trend in the law of the sea. While the permitted measures are limited to two of the less intrusive forms of ‘traffic’ (as opposed to discharge/emission or CDEM) measure, are subject to specific IMO approval and involve no enhancement of coastal State enforcement
powers, a new principle is established: a coastal State (Party to SOLAS 1974) is able to prescribe and implement environmental protection requirements higher than the global minimum standards, even in areas beyond their territorial waters. ‘That flag State interests are taken into account through the requirement of IMO approval cannot affect the fundamental point that coastal state jurisdiction now exists where none existed before’: Molenaar, 1998, p. 527. On the other hand these amendments arguably constitute the limits of the concessions maritime States are at present prepared to make in order to adjust the balance between international navigation interests and coastal State environmental protection concerns, in the latters’ favour (Plant, 1997 and 2000a).

107. Molenaar argues, on the contrary, that there have been other similar developments in the IMO’s role ‘which arose to satisfy contemporary needs’ and ‘cannot but have an impact on the navigation/environment balance’ (1998, p. 527). He suggests that these include: ‘the adoption of Annex VI to MARPOL 73/78…, the extension of port State control to operational requirements, the regulation of navigation in straits falling under Article 35(c) LOSC, and the PSSA concept which, although as yet hardly used, has the potential of leading to wider application in comparison with Article 211(6) LOSC’. It is true that these matters all have a jurisdictional dimension, which must necessarily be seen to have some impact on (at least the perception of) the navigation/environment balance. On the other hand, his argument is unlikely to have much influence on the majority of EC Member States’ attitudes towards an EC ship emissions’ regime involving strong coastal State prescription and enforcement powers; a number of them will be very concerned about the potential impact of this on navigation.

108. The impact on the navigation/environment balance of each item on Molenaar’s list should not, indeed, be over-estimated; we comment as follows:

(i) the reference to MARPOL Annex VI is possibly more accurately one to his unconvincing argument (see below paragraphs A4/113-15) that MARPOL Reg. VI/11(6) creates rights erga omnes, and is not merely an agreed interpretation of the LOSC Articles 212 and 222 consistent with the pacta tertiis principle, by those Parties to the LOSC which negotiated, and have or might also become Parties to, MARPOL Annex VI;
(ii) the extension of PSC to operational requirements can be seen as little more than the recent switch in IMO’s emphasis from regulatory requirements to concern to combat the negative effects of the ‘human factor’ on maritime safety and environmental protection;
(iii) as far as Article 35(c) straits are concerned, the IMO consistently expressed its desire to avoid involvement in all but technical issues surrounding safety (and related environmental issues) in the Turkish Straits; indeed, it has now dropped the matter, in apparent disregard of the ‘jurisdictional’ consequences of doing so (Plant, 1995, and esp. 2000); and
(iv) the on-going debate on the PSSA concept has yet to suggest that it will have any major impact on jurisdictional aspects of the law of the sea. At present, identification of an area as a PSSA may add value by ‘gathering together’ under one management concept all protective measures applicable within that area and serving as a special warning to mariners that navigation within the area requires the fulfilment of these and regard for the environment. On the other hand its value seems largely limited to raising awareness rather than altering the jurisdictional balance. Indeed, against US objections, the Cuban Sabana-Camagüey Archipelago was adopted as such an area in advance of Cuba’s specifying what special protective measures it considered appropriate there (Resolution MEPC.74(40)), and the measures subsequently adopted do not appear to add to Cuba’s existing jurisdictional claims: Gjerde, 1999, pp 417-18. In addition, when the IMO identified (in Resolution MEPC.45(30)), the only other existing PSSA, covering areas of Australian territorial and jurisdictional waters in the Great Barrier Reef area, while it used stronger language than in any comparable case, it stopped short of endorsing
Australia’s request for a system of compulsory pilotage in parts of the PSSA. It calls upon Member States to ‘recognise the need for effective protection of the Great Barrier Reef region and inform ships flying their flag that they should act in accordance with Australia’s system of pilotage for merchant ships’ (emphases added) (Resolution MEPC.44(30)). On the other hand, this is very close to an endorsement, and Australia in fact proceeded, in 1991, to amend the Great Barrier Reef Marine Park Act 1975, so as to provide for compulsory pilotage for all large vessels and for criminal penalties for non-compliance. Flag States have acquiesced. (See further as to the legal status of PSSAs, MEPC 43/6/2.)

109. Where we can agree with Molenaar is in his conclusion that the requirement of IMO approval (for example for mandatory routeing or SRS systems) ‘reflects the preference for regulating “new” exercises of jurisdiction at the international rather than at the national level’, particularly where this leads to higher compliance through wider publicity and awareness of the measures in question: ibid. pp. 527-28.

A4: 2.2.5.2 State Practice and the IMO’s role

110. State practice with respect to the meaning of GAIRAS, the legal status of the LOSC rules of reference and Article 218 jurisdiction has been discussed above. It remains to examine it in respect of the legislative (and practical enforcement) measures actually taken by coastal States in relation to pollution from vessels in general and ship-source air pollution and to the ‘indirectly binding effect’ of the LOSC.

111. Few States (and apparently no EC Member State) have legislated specifically to regulate ship-source air pollution at sea. Many States have, however, enacted legislation, in varying degrees of detail, prescribing standards on pollution from vessels in general. Details of EC Member State practice in this regard are set out in Section 5 below, with a view to determining their potential applicability vel non to air pollution. On the other hand, it is difficult to obtain evidence of actual cases of enforcement of such laws and regulations at sea, which in any event appears to be largely limited to monitoring and requests for information.

112. Few States have, moreover, enacted legislation dealing in detail with enforcement at sea. This appears to indicate a strong preference for in-port enforcement, which has many practical advantages and poses less danger to navigation: Birnie and Boyle, 1992, p. 276; Molenaar, 1998, p. 524. Indeed, the UK has officially stated its preference for in-port enforcement (Hansard, 1979). Details of other EC Member State practice in this regard are set out in Section 5 below, with a view to determining their potential applicability vel non to air pollution.

113. Of more instant concern is the argument that State practice in relation to the law of the sea alters the picture presented above to the extent that the IMO can be seen as a ‘universal legislator’ which in practice determines the standards all coastal States can apply to all ships regardless of flag. The argument proceeds as follows: MARPOL Reg. VI/11(6) does not merely make the GAIRAS concept relevant to the prescription and enforcement of ship-source air pollution laws and regulations in EEZs. It also gives rise to the ‘indirectly binding’ effect of the LOSC, described above (at paragraph 4/64). In principle, it appears, no such effect could arise for non-Parties to the LOSC (nor for persistent objectors to the formation of customary norms around GAIRAS). As regards pollution from vessels in general, however, Molenaar argues (1998, p. 180), in practice ‘coastal States, both Parties and non-Parties to the LOSC, impose their legislation on every foreign ship.
irrespective of flag’. This practice, he suggests, proceeds from the view that the very rules of reference in the LOSC are based in customary international law: *ibid.*, pp. 180-81. He adds that this practice appears also to extend to regulatory conventions, such as MARPOL, perhaps reinforced by its no-more favourable treatment clause (Article 5(4)), i.e. the provision requiring that non-Party flag vessels be treated no more favourably than Parties’ flag vessels: *ibid.*, pp. 179-82. From a flag State perspective, therefore, he concludes, becoming a Party to the LOSC seems to have lost much of its significance in terms of the acceptance of its indirectly binding effect; coastal States seem to believe they have a customary international law right to prescribe and enforce GAIRAS, irrespective of vessels’ flags, within their maritime zones. In particular, among EC States, France (Article 7 of the 1983 Law) and the Netherlands (Explanatory Note and Article 1 of the 1997 Decree) expressly stipulate that their legislation applies to ships irrespective of flag, which suggest that this argument might find some support within the EU (see further paragraph A4/435 below).

114. Molenaar appears, however, to push the argument too far. He states that, ‘As coastal States appear to proceed from the understanding that customary international law allows them to prescribe and enforce GAIRAS irrespective of flag within their maritime zones, flag States presumably have a corresponding obligation under customary international law to make sure that ships flying their flag observe GAIRAS at least within the maritime zones of a coastal State and perhaps even anywhere’ (*ibid.*, p. 182). If this is the case, he continues (and he recognises several factors that give some cause for doubt), IMO has in effect become a ‘universal legislator’, in the sense that, ‘Upon entry into force, rules and standards adopted within IMO can be applied to every ship, irrespective of flag, and regardless of whether this occurs through a newly adopted convention or the tacit amendment procedure’ applied to an existing IMO convention. ‘This situation’, he continues (at p. 530), ‘satisfies the need for universal coverage so indispensable in a regulatory approach for vessel-source pollution that is predominantly based on uniformity. A key characteristic is that States can in principle no longer invoke their sovereignty in each individual situation’, consent to be bound being imported either by their becoming a Party to the LOSC or the relevant regulatory convention (MARPOL) or ‘presumed in light of their acquiescence in the coastal State practice of applying GAIRAS irrespective of flag’ (*ibid.*).

115. In our opinion, however, a coastal State power does not give rise to a corresponding flag State obligation. First, on a Hohfeldian analysis (Hohfeld, 1946), a power of one party need not correspond to a duty of another. Second, Article 94(5) LOSC requires a flag State ‘to conform to generally accepted international regulations, procedures and practices’ in exercising its jurisdiction and control in various areas over ships flying its flag, and Article 211(2) requires its marine environmental protection laws to at least have the same effect as GAIRAS, but in neither is there a suggestion that it is also bound to require them to conform with any coastal State law that corresponds to GAIRAS thus conceived. If such a customary international law duty had existed in 1982, they would surely have done so (of course, such a customary duty *might* have emerged since). Tacit acquiescence is a weak basis on which to draw a conclusion contrary to the *pacta tertiis* principle (Article 35 of the Vienna Convention on the Law of Treaties requires prior written consent). Third, we can see no basis for the suggestion that the duty could apply ‘anywhere’, i.e. beyond coastal State zones. Finally, in order to substantiate his strong claim for the IMO, he must at least demonstrate that his propositions are true for legislation that applies to EEZs separately from that applicable only to the territorial sea, and preferably demonstrate that enforcement
measures at sea in practice follow this pattern. He asserts that ‘coastal States seem to take a uniform approach in applying their legislation, and do not differentiate between the different maritime zones, at least not in this respect’ (p. 181), but this conclusion is based upon an examination of a limited number of national laws relating to enforcement, and not at all upon examples of actual enforcement.

116. The IMO has, indeed, become a universal legislator, but this, we submit, is manifest only where its conventions, and amendments thereto adopted by tacit amendments procedures, have become overwhelmingly representative of the entire international community; SOLAS, to which there are 140 Parties, representing 98.34% of world tonnage, is an example. If Molenaar is correct, however, it might be argued to follow that the ‘rule of reference’ to MARPOL Annex VI standards, produced (at least for Parties to MARPOL Annex VI) by MARPOL Reg. VI/11(6)’s rendering Article 211(5) applicable to ship-source air pollution, means that that provision will be ‘indirectly binding’ on all States (and not even merely Parties to the LOSC and/or MARPOL), i.e. that, when in force, Reg. VI/11(6) will be binding erga omnes with respect to ship-source air pollution. Molenaar might even argue, from his view that MARPOL Annex VI already represents GAIRAS (paragraph A4/91 above), that it already is binding erga omnes. It does not necessarily follow, on the other hand, that State practice with respect to pollution from ships extends, or will be extended, to this.

117. A variation on the argument might be put forward as follows: that State (and, indeed, EC) practice in the area of vessel safety and pollution prevention marks an erosion of the pacta tertiis principle, such that the EC is entitled to impose regional air pollution standards higher than IMO standards in its waters. If the international community is increasingly permitting global shipping to be governed by special regional safety and environmental protection regimes that are truly regional, and not merely globally-agreed regional exceptions, the argument arises that this is contributing to the erosion of the pacta tertiis principle. If the principle need not be applied, the UNECE instruments, for example, can be used to improve the legal basis of an EC instrument on sulphur content that extends offshore. If the international community has not permitted this, the (quasi-legal, quasi-policy) question nevertheless arises whether or not regional interests should be permitted to prevail where global attachment to the principle of global standards for shipping fundamentally undermines those regional interests. The relative contribution of shipping to air pollution is growing, and there is much evidence that tackling it would be one of Europe’s most cost-effective options in its effecting its Acidification Strategy (see Chapter 2, Tables 2.3 and 2.4); it is arguable that this interest should prevail over the global interest in uniformity: contra, semble, the International Chamber of Shipping (ICS): IMO doc. MEPC 41/8/4.

118. At least one European regional development does appear, prima facie, to give some support to the possibility of coastal States applying regional standards higher than global standards, the 1996 Stockholm Agreement on Stability Criteria on Ro-Ro Ferries (to which there are eight, European, Parties). But this concerns port, rather than coastal, State jurisdiction and arguably involves merely the application of IMO-approved regional standards, with that Organisation’s permission: Göransson, 1997. Handl (1997) deals comprehensively with this and concludes that it does not erode the pacta tertiis principle.

119. In addition, Nollkaemper and Hey (1995, p. 282) suggest that the EC (or at least the Transport D-G) has been moving slowly away from a shipping safety and
environmental protection policy that emphasised enforcement of existing global standards towards prescribing its own regional standards (cf. also Molenaar, 1998, p. 159, note 93, and see now the Commission proposals following the *Erika* stranding). If this is so, however, it is only in a limited, exceptional sense (see paragraphs A4/149 and 425 below). That EC measures taken in this field have not been met with protests from other States is some evidence of their consistency with international law.

120. The better view is that MARPOL Reg. VI/11(6) will be binding only binding on Parties to Annex VI when it comes into force.

**A4: 2.2.6 In-Port Prescription and Enforcement Measures: The Preferable Approach?**

**A4: 2.2.6.1 States’ Sovereignty in Ports**

121. As has been stated above, coastal States enjoy sovereignty over their internal waters, including their ports and harbours (Article 2(1) LOSC); customary international law does not in general restrict the competence of States to regulate foreign flag vessels voluntarily present in their ports and presenting pollution hazards. *The Lotus* Case, 1927, is, moreover, clear international judicial support for the existence of a presumption in favour of territorial sovereignty, and that derogations from this are to be handled with care. CDEM and other matters that ‘travel with the ship’, it has been explained, are also naturally best enforced through port State action. As has been explained too, a coastal State is entitled to exercise in-port enforcement measures with respect to pollution violations occurring in its maritime zones, subject to the limitations provided for in the LOSC. As the port-coastal State distinction concerns a single State wearing different ‘hats’ and the concern of this Study is determining the extent of EC Member States’ scope of action in their ports, keeping the distinction intact is relatively unimportant here, so the text below will refer in general to the ‘port/coastal State’ without distinction.

122. It is generally accepted that, by virtue of the port/coastal State’s sovereignty, there is no customary international law right of access to a foreign port, except for a ship in distress or entering under *force majeure*. The ICJ, has stated, in the *Nicaragua* Case, that it is ‘by virtue of its sovereignty that the coastal State may regulate access to its ports’. Some international lawyers have argued that international navigation rights and entry to ports are intimately connected, on the ground that exercising the former is pointless without a right to the latter, but the better view is that there is no necessary connection between the two: Public International Law recognises that ships are often constrained by safety or economic reasons to navigate close to foreign shores, and facilitates their entering and leaving ports, by making coastal States’ sovereignty over their territorial seas subject to a right of innocent passage for foreign ships, but merchant ships invariably have a choice of ports to call at while plying their trade, so that their exclusion from individual ports or all the ports of a State, or perhaps even of a region, like the EU, will not, legally speaking, interfere with their international navigation rights.

123. It follows from the absence of a right of entry to foreign ports that conditions may be imposed upon entry where it is permitted, including conditions relating to environmental protection. The ICJ dictum, cited in the previous paragraph, confirms this. Although the LOSC does not directly address the legal regime of internal waters, Articles 25(2) and 211(3), which in our opinion represent customary international law in this respect, do (indirectly) recognise a broad right of States to ‘establish particular requirements for the prevention, reduction and
control of pollution of the marine environment as a condition of entry of foreign vessels into their ports. Port entry requirements can, in principle, include requirements relating to the prevention or reduction of air pollution from ships. Entry to an EC port for a foreign vessel could thus, in principle, be conditioned upon its having on board and using bunker fuel with a specified sulphur content, or upon the payment of port or other dues that are differentiated according to the calculated or reasonably presumed contribution of the vessel to SO2 and/or NOx emissions. It would also appear that the port/coastal State could take measures to enforce such a requirement, including preventing the entry into port of vessels unwilling or unable to comply, temporarily detaining in port vessels failing to comply and initiating administrative or legal proceedings to impose penalties on them, arresting vessels in the territorial sea that have left after failing to comply and even the hot pursuit beyond territorial waters of those departing in violation of the requirements.

124. In addition, Article 211(3) LOSC permits States to harmonise their port entry policies through co-operative arrangements. Where several States operate the same port entry requirements for the prevention, reduction and control of pollution, one of those States may require the master of a ship passing through its territorial sea, upon request, to inform it whether or not it is proceeding to the port of another State participating in the arrangement and whether or not it complies with its entry requirements. The 1996 Stockholm Agreement is arguably an example of such an arrangement. Such a system could also be operated as between EC Member States in relation to port entry requirements concerning ship-source air pollution. On the other hand, the fact that the vessel needs to be aware whether or not it is in compliance with the entry requirement long before it reaches the waters of the State of destination suggests not only that the giving of widespread notice of the port entry requirements is a prerequisite to operating such a scheme but also that these requirements are limited to those that ‘travel with’ the ship, such as CDEM or (in practical terms) fuel content matters. They cannot by their nature relate to its intention vel non to comply with port dues requirements or the like.

125. The basis of in-port jurisdiction is territorial: it stems from the voluntary presence within internal waters of a merchant ship, which thereby owes temporary allegiance to the local sovereign, and the occurrence of acts or omissions by or on board that ship within its territorial or jurisdictional waters. It is thus, of course, subject to the normal international law rules concerning the privileges and immunities from territorial jurisdiction of foreign State-owned or operated ships engaged in non-commercial service. In practice, such vessels are invariably excluded from the scope of the prescriptive provisions of IMO conventions, including MARPOL Annex VI (see below paragraph A4/221), albeit that there is usually provision encouraging them to act in a manner as consistent with its provisions as possible. It follows that such vessels should be exempted from the scope of any EC ship emissions regime, subject to the same proviso.

126. The effect of the absence of a general right of entry to foreign ports is somewhat mitigated by the many bilateral treaties and the one significant multilateral treaty (the 1923 Convention and Statute on the International Regime of Maritime Ports, to which there are 40, including over ten EC, Parties), that accord the ships of States Parties rights of entry to each others’ ports. In addition, Article V of the 1947 General Agreement on Tariffs and Trade (the 1947 GATT, now incorporated in the 1994 GATT Treaty) requires States Parties to afford access to their ports for each others’ vessels and goods in ‘international transit’. This is defined as passage across the port State’s territory which ‘is only a portion of a complete journey.
beginning and terminating beyond [its] frontier’, where the said ports lie on ‘the routes most convenient for international transit’ (cf. Churchill and Lowe, 1999, p. 64). This is likely to be of particular significance to major entrepôt ports, like Rotterdam, Antwerp and Hamburg. It is discussed further below, at paragraph A4/274. In addition, the EC Treaty affords each Member State’s ships and goods a right of entry into other Member States’ ports.

127. Where a treaty right to enter a port exists, it implies the existence too of a right to leave port, but any such right is subject to important limitations (Churchill and Lowe, ibid.). States are entitled to arrest ships in ports in accordance with their normal legal processes, and ships are liable to arrest there as security in civil actions or in actions *in rem* against the ship. It is true that the 1952 Arrest Convention (to which 69 States are Parties, including all EC coastal Member States), limits this liability to ‘maritime claims’. This treaty is also noteworthy for assuming the existence of broad powers of detention by governmental and port authorities, which powers can, one presumes, extend to environmental protection purposes: ‘nothing in this Convention shall be deemed to extend or restrict any rights or powers vested in any Governments or their Departments, Public Authorities, or Dock or Harbour Authorities under their existing domestic laws or regulations to arrest, detain or otherwise prevent the sailing of vessels within their jurisdiction’. Port States can also require ships to obtain clearing papers from the port authorities, certifying compliance with customs, sanitary, health and similar formalities, before they leave port. See now the 1999 Arrest Convention (not yet in force).

A4: 2.2.6.2 Legal Limitations upon Sovereignty in Ports: Customary Law and Practice

128. Several limitations upon the port/coastal State’s freedom to impose a ship emissions regime in its ports might be argued for. These are more or less inter-related.

129. First, as ‘ships are more or less self-contained units, having not only a comprehensive body of laws - those of the flag State - applicable to them while in foreign ports, but also a system for the enforcement of those flag State laws through the powers of the captain and the authority of the local consul, coastal States commonly enforce their laws [throughout their territorial waters] only in cases where their interests are engaged. Matters relating solely to the “internal economy” of the ship tend in practice to be left to the authorities of the flag State’ (Churchill and Lowe, 1999, pp. 65-66). In this way a compromise is achieved between the conflicting interests of the port/coastal State over activities within its jurisdiction and the flag State’s need to defend the freedom of navigation. It is not absolutely clear whether or not this is based on mere practice, or ‘comity’, (the Anglo-American view) or on a principle of customary international law (the French view). The better view is that the Anglo-American approach is the stronger, because it is more consistent with the notion of the port State’s absolute sovereignty over its internal waters, although in practice the results under both systems have been remarkably similar (ibid., pp. 66-67). In addition, it is not always easy to determine what is and what is not an ‘internal’ matter (Note in 69 Yale LJ, esp. pp. 511 and 520). In relation to air pollution, however, the port/coastal State is able to treat the matter as one (that is not internal to the ship but) where its interests are engaged, since at least some of the emissions in question are polluting its atmosphere.
130. There remain at least two, and perhaps three, fundamental and inter-related, limitations to port/coastal States’ in-port powers under customary international law.

131. First is the geographical limitation that in-port enforcement should only relate to acts or omissions breaching coastal State laws or regulations in its waters or ports - i.e., the basis of its jurisdiction being territorial, the port/coastal State has no right to deal with conditions or events that might arise outside its waters. That is a matter, it seems, for ‘true’ port State jurisdiction, under Article 218. The implementation of MARPOL and other IMO conventions ‘does not imply an extension of the port State’s enforcement authority over violations on the high seas or in foreign coastal waters, only control of ships and their equipment; control of discharge at sea [in its territorial or jurisdictional waters]; control of crew competence and working conditions and other requirements present in the ship as it enters the port in question. The rectification of these conditions is well within the jurisdiction of the port State since they are “present” while the vessel lies in its waters’ (Kasoulides, 1993, pp. 110-11). It is well to recall, therefore, that, the normal exercise of in-port enforcement jurisdiction (unlike Article 218 jurisdiction) is essentially aimed at protecting the State's own interests. These are, in the case of ship-source pollution, its territorial interests in protecting from acidification and other effects its coastal areas and a band of waters, including internal waters, adjacent to them.

132. Special mention should be made of coastal State in-port jurisdiction in port facilities, roadsteads or terminals lying beyond internal waters ('off-shore terminals'). Where these lie within the territorial sea, the port/coastal State’s sovereignty is restricted in respect of foreign vessels by the right of innocent passage; this would appear, however, to be no limitation at all in this context, where vessels call voluntarily at the terminal. On the other hand, the restriction, by Article 21(2) LOSC, of the coastal State’s CDEM laws and regulations to those giving effect to GAIRAS appears to be a potential limitation upon a ship emissions regime as enforced at offshore terminals: see Section 2.2.3.1 above. No such limitation appears, in principle, to apply in ports in internal waters, if only because of the vessel's voluntary presence: Bernhardt, 1980, p. 291; Wang, 1986, p. 328. Where the offshore terminal lies beyond the territorial sea, however, it would appear that any controls must be voluntary; fortunately, at present at least, this is only a theoretical problem for Europe.

133. Second is the principle that the port State’s territorial jurisdiction over vessels is in general based on the voluntary presence of those vessels. Attempts at UNCLOS III, to remove the word ‘voluntarily’ from the negotiating text of Article 220(1), on the ground that its retention constituted an undue interference with the rights of the coastal State, were unsuccessful: Rosenne and Yankov, 1991, p. 299. Neither the word ‘voluntary’ nor its derivations appear in Articles 25 or 211(3), concerning conditions for entry into ports, but the idea is arguably implicit in their references to ‘conditions’ for ‘entry’ to or ‘calls’ at a port or off-shore terminal. Consistent with this principle, public international law requires a degree of immunity from jurisdiction to be given to ships forced, involuntarily, into internal waters by distress or force majeure (and arguably also to those entering in pursuance of an overriding obligation to preserve the safety of life at sea). Timagenis (1977, at pp. 36 and 620, note 93), takes the view that a vessel obliged to enter a port by force majeure is voluntarily present, but this seems odd and is not generally accepted: cf. Hakapää, 1981, p. 180; and Rosenne and Yankov, 1991, p. 272. On the other hand, the extent of this customary law restriction on port State jurisdiction is not precise, and it seems that at least some local laws and regulations can be applied...
to foreign ships involuntarily present in port (Churchill and Lowe, 1999, p. 68), but not, for the reasons given above, at off-shore terminals. The Article 219 LOSC power to detain unseaworthy vessels appears, for example, to apply to vessels involuntarily present in port. It is, on the other hand, unlikely that a vessel can be considered ‘unseaworthy’ merely for failure to comply with air pollution requirements, for the reasons set out below (at paragraphs A4/185-91 below).

134. Third, ‘The essential ground for the application of local law to visiting ships is their temporary presence within the territorial jurisdiction of the coastal State (emphasis added)’: Churchill and Lowe, 1999, p. 68. Two questions arise: (i) does the occurrence of frequent visits by a foreign vessel, engaged in a regular course of trade with a coastal State’s ports, result in an enhanced base of jurisdiction; and (ii) by way of contrast, does the temporary nature of a ship’s visit import any constraints on that State’s jurisdiction? ‘Sometimes the coastal State has sought’, Churchill and Lowe continue, ‘to impose on foreign ships obligations which, if they are to be complied with in the State’s ports, must be complied with throughout the voyage. Notable examples that have arisen in the past include the United States liquor laws of the 1920s, prohibiting the carriage of alcohol in American waters; laws subjecting foreign shipping companies serving United States ports to a wide range of duties to disclose details of their trade, in American ports and elsewhere, and to American anti-trust laws; and laws regulating the employment of seamen on foreign ships frequenting American ports. All these exercises of jurisdiction have been vigorously protested by the flag States concerned, with varying degrees of success. They are objectionable both on the ground that they offend against the rule of comity concerning the ‘internal economy’ of visiting ships and, more seriously, that in some respects at least they exceed the limits of jurisdiction which can be properly claimed on the basis of the temporary presence of foreign ships in ports (endnote omitted; emphasis added)’.

135. This matter is clearly linked with the other two legal restrictions on in-port jurisdiction argued for above. The issue, in short, is, if a vessel’s presence in port is temporary and voluntary, has the port/coastal State the right to impose on it requirements that in their practical effect follow the ship beyond the limits of the port and territorial waters (‘eternal’ effects). The USA being the country most assertive of extraterritorial jurisdiction, the US Supreme Court’s jurisprudence is perhaps the most instructive in this regard.

136. The analogy between in-port enforcement against foreign ships of a law prohibiting the carriage and use of alcohol in American waters and of a putative law prohibiting the use of high-sulphur fuel in EC waters is quite a close one, the main legal difference being that the latter would not extend to mere carriage. In Cunard S.S. Co. v Mellon, the Supreme Court held the Eighteenth Amendment to the US Constitution and the 1919 National Prohibition Act applicable to foreign vessels temporarily present in US waters, specifically dealing with the instances when liquor, whether cargo or merely ship’s stores, was only in transit through US ports, and affirming its decision in Anchor Line v Aldridge, that even a trans-shipment of a liquor cargo between two foreign ships in an American harbour (not involving its importation into the USA) was caught by the Act. The Court did not appear to be concerned by the effect on foreign ships and shipowners beyond the USA and its territorial waters, even though the imposition of criminal penalties, including forfeiture of offending ships, was at issue. It also does not appear to have been influenced by the fact that the ten foreign Applicants were passenger liner companies whose ships called regularly at US ports. Only two Justices dissented and appear to have done so more out of a desire for clearer evidence of
Congressional intent to displace the rule of comity against interference in foreign ships’ internal affairs (which is especially strong where the States have concurrent jurisdiction with the Federal Government) than because of the temporary nature of their presence. In his Dissenting Opinion, Justice Sutherland did say, however, ‘If, upon consideration, Congress shall conclude that when [foreign] vessels, in good faith carrying liquor among their sea stores, come temporarily into our ports their officers should, ipso facto, become liable to drastic punishment, and the ships themselves subject to forfeiture, it will be a simple matter for that body to say so in plain terms (emphasis added)’ (p. 133). ‘The embarrassment to British [and other] vessels [caused] by this decision was serious’: Cook v US, per Brandeis J., at 116. Protests followed from Belgium, Denmark, Italy, the Netherlands, Norway, Portugal and Sweden, as well as the UK: ibid., n. 16. The problem was only resolved through a series of treaties, between the USA on the one part and Denmark, Germany, Italy, Sweden and the UK on the other, common article III of which permitted liquor to be kept on board ships flying the latter’s flags in US ports, but only as sea stores and on condition that they were sealed while within US jurisdictional waters.

137. It is, however, the four inter-related Seamen’s Wage Acts and the series of US Supreme Court cases concerning the applicability vel non of US labour laws to foreign vessels that are most instructive in this regard, notwithstanding that they do not generally involve the criminal law.

138. The four Seamen’s Wage Acts of 1875 and 1884 were ‘apparently enacted to reduce foreign shippers’ competitive advantage by indirectly forcing them to pay higher wages. The most important was designed to enable dissatisfied seamen [on foreign ships] to jump ship in American ports by giving them the right to collect part of the wages they had already earned immediately, irrespective of the terms of their articles of employment’: Note in 69 Yale LJ, at 507-08. The US Supreme Court held all four Acts applicable to payments in US ports to foreign seamen: see citations, ibid., note 64. In Strathearn Steamship Co. v. Dillon, for example, it applied the most important of the Acts (as amended in 1920) to a British seaman serving under British articles on a British vessel in a US port. In all cases, the mere temporary presence of the vessel was enough to found jurisdiction, and Congress’s very intention was for this to have effects on foreign ships and shippers, going beyond US territorial waters. On the other hand, Congress’s intention was also interpreted to be limited to prescribing a right to payment only when the vessel entered an American port. In Jackson v. S.S. Archimedes the Supreme Court held the same Act to be inapplicable to advance payments made to a foreign crew on a British vessel in the UK before departure to the USA. Following the latter case, attempts were made in Congress to extend the Act to cover just such payments made abroad, but these were defeated by a storm of diplomatic protest from Canada, Denmark, Germany, Italy, the Netherlands, Norway, Sweden and the UK: see Benz v. Compania Naviera, at 146.

139. The above wages cases were not, however, authority too for the application of the various US labour law statutes to employer-employee relations on foreign vessels in US ports. These should be examined separately. The leading case, Benz v. Compania Naviera Hidalgo, concerned a strike and picketing by a foreign crew on board a foreign vessel while it was temporarily present in a US port. The crew were dismissed and ordered off the vessel by a federal court, and civil actions were pursued, successfully, in the State courts against the representatives of several American trade unions which had joined the picketing in support of the foreign crews. The case, like several of the following cases, turned upon the
question whether or not federal law pre-empted the field (from State law), but in reaching its decision the Supreme Court made a survey of the applicability of US labour statutes to foreign vessels. It stated:

if Congress had so chosen, it could have made the [1947 Labor Relations Management] Act applicable to wage disputes arising on foreign vessels between nationals of other countries when the vessel comes within our territorial waters. The question here narrows to one of intent of the Congress as to the coverage of the Act.

It appeared to the Court that the possibility had not even occurred to Congress.

140. The exact scope of Benz is uncertain (see Note in 69 Yale LJ, at 516-23), but, for the purposes of this Study, at least two things appear to follow: (i) the US Supreme Court is of the view that Congress has the power to prescribe labour laws applicable to foreign vessels with no connection with the USA, with a view to their enforcement when such vessels are merely temporarily present in American ports: the obstacles to its doing so are, in their view, political rather than legal; and (ii) in practice Congress has only asserted prescriptive jurisdiction for labour law purposes over foreign vessels on the basis of a relevant event occurring during their temporary presence in US territorial waters, and the courts have enforced this only following such temporary presence and the occurrence of such an event.

141. As in the liquor law cases, mere temporary presence is sufficient to found this jurisdiction. The Court refused to distinguish Benz in McCulloch v. Sociedad Nacional de Marineros de Honduras, on the ground that the ‘vessels [in question were] not [merely] temporarily in United States waters but operating in a regular course of trade between foreign ports and those of the United States’ (pp. 14-15; cf. Cunard S.S. Co. v Mellon, supra). In that case, international interest was such that briefs of amicus curiae were filed by lawyers for Canada, Honduras and the UK. (See also the obiter dictum in Marine Cooks and Stewards v. Panama Steamship Co. Ltd. (at p. 372), that the entry of a foreign ship present in a US port into a US court as a plaintiff does not affect the jurisdiction).

142. The cases are perhaps more concerned with the rules of comity concerning the ‘internal regime’ of foreign ships than they are about ‘temporary presence’. Nevertheless, their importance for this Study lies in how far the Court, in trying to identify Congressional intent, has taken into consideration the impact beyond US ports of control by American organs of events surrounding vessels temporarily present in American ports. In International Longshoremen’s Association v. Ariadne Shipping Co. Ltd., it distinguished Benz and McCulloch on the ground that the dispute was really about American longshoremen’s on-shore jobs; the Court accepted that picketing in this case was designed to protect these jobs against undercutting by the use of foreign crew and outsiders who were being paid sub-standard rates on foreign vessels. This judgement prevailed over any concern that control by American agencies of foreign vessel practices in American ports that has the effect of increasing the world-wide operating costs of those vessels is interfering in matters of international relations and comity. Not so in Windward Shipping (London) Ltd. v. American Radio Association and American Radio Association v. Mobil Steamship Association Inc.

143. The majority in Windward Shipping held (at 113-14) that Congress ‘simply did not intend [the Labor Relations Management Act] to erase longstanding principles of comity and accommodation in international maritime trade’, especially through an Act which was unrelated to maritime commerce and directed solely at US labour relations. It formed the view (at 112) that picketing of foreign vessels by American
seamen’s unions designed to force them to raise their operating costs to levels comparable to US shipowners had the effect of ‘engaging international relations’. It was concerned (at 114) that ‘such a large increase in operating costs would have more than a negligible impact on the “maritime operations” of those foreign ships, and the effect would be by no means limited to costs incurred while in American ports’. The owners, it considered, unless provided with a speedy remedy in the State courts, would be caught in a ‘Catch 22’ situation, whether they complied with the union demands, thus paying increased wages everywhere and for the future, or tried to resist them, thus suffering the losses arising from its inability to unload and move on to trade elsewhere. This, the Court continued (at 114), ‘would have the most significant and far-reaching effect on the maritime operations of these ships throughout the world’ and would be ‘detrimental to... the citizenry of a country as dependent on goods carried in foreign bottoms as is ours’.

144. The majority judgement met, however, with a powerful dissent from three formidable Justices, Brennan, Douglas and Marshall. Echoing the aims of the Seamen’s Wage Acts discussed above, they stated their opinion (at 125) that, ‘Far from conduct in conflict with Congress’s legislative policies in the maritime field, respondents’ picketing seeks precisely the same goals’ (ensuring conditions in which the US merchant fleet can compete). To their minds, the impact of US exercises of jurisdiction on ship operations beyond US ports was not merely immaterial, but actually even desirable.

145. The majority followed the same line in American Radio Association, but on this occasion Justice Stewart joined the dissenters.

146. The picture emerging from the US Supreme Court is thus a mixed one. All the cases support the principle that US jurisdiction may be founded upon the mere temporary presence of a vessel. All can equally be reconciled with the proposition that, as a matter of comity, Congress should, in the fields in question, nevertheless refrain from seeking to control acts with no territorial connection with the USA. The liquor and Seamen’s Wage Acts cases, moreover, clearly disregard any extra-territorial impacts of the exercise of jurisdiction over foreign vessels temporarily present in US ports, but the labour law cases are split on this point. Indeed, there appears to be something of a trend in these cases towards a recognition that the temporary nature of a vessel’s presence in port imports some constraint on port State control of matters present in port but also having ‘eternal’ impacts once the vessel in question has left port. This trend is not favourable to an EC ship emissions regime that seeks to impose standards in EC ports that will necessarily have to be observed elsewhere too.

147. For completeness, it is perhaps sensible to note here that the US Supreme Court has never permitted US agencies to control in this manner foreign vessels which are not present, even temporarily, in US ports at the material time. The Court, in rejecting a personal injury claim by a Danish sailor, employed on a Danish ship, and injured in the port of Havana, refused to give a literal reading to a US statute giving a right of action to ‘any seaman who shall suffer personal injury in the course of his employment’ (emphasis added): Lauritzen v Larsen. In that case, Justice Jackson cited a judgement of Chief Justice Marshall about a criminal statute prohibiting certain acts on the high seas when committed by ‘any person or persons’: United States v Palmer. In that case, Justice Jackson cited a judgement of Chief Justice Marshall about a criminal statute prohibiting certain acts on the high seas when committed by ‘any person or persons’: the Court determined that the literal universality of the prohibition ‘must not only be limited to cases within the jurisdiction of the state but also to those objects to which the legislature intended to apply them’ [United States v Palmer, at 631] and, therefore, would not reach a person performing the prescribed acts.
aboard the ship of a foreign State on the high seas. That doctrine of construction accorded with Marshall’s ‘long heeded admonition’ in *Murray v Schooner Charming Betsy* (at 118), that an Act of Congress ought never to be construed to violate the law of nations if any other possible construction remains. This did not, however, prevent the Court of Appeals for the Fifth Circuit in *US v Postal* from asserting a ‘traditionally asserted jurisdiction over foreign vessels on the high seas’, limited only by general international law and treaty provisions that are self-executing or otherwise incorporated into US municipal law, to punish the attempted importation of illegal drugs.

148. A recent New Zealand case, *Sellers v Maritime Safety Inspector*, also contributes to the view expressed in the more recent US labour law cases, that there are limitations upon port State jurisdiction that arise from the temporary nature of a foreign vessel’s presence, in this case with respect to pleasure craft safety. The (non-GAIRAS) port State requirement in question (for vessels, when departing for another port, to have aboard a radio and emergency locator beacon, intended to assist the New Zealand authorities in any necessary search and rescue operation) was made applicable to foreign vessels. The Court of Appeal expressly held (at p. 54) that the proposition that the port State can control matters of external effect ‘where that is necessary to protect an important state interest [viz. the responsibilities which New Zealand has to provide search and rescue services in a vast area of the Pacific Ocean], even when this means that, in fact, the requirement imposed by the port state will have effect on the high sea’ (i.e. the ‘effects’ doctrine) went beyond the current state of customary international law. The doctrine’s application was in its view limited particularly by the exclusive flag State jurisdiction in respect of ‘matters of the navigation of the high seas’. The Court also held (at p. 48) that the specific measures in question could not ‘be seen as doing no more than creating an offence which is committed within New Zealand internal waters, at the point of departure from port, and which can be enforced only by proceedings brought in a New Zealand court, without any related powers being exercisable on the high seas’. ‘The reality’, it said, ‘is of course quite different. The effect, if not the purpose, of the provision is to place requirements on the exercise of the freedom to navigate on the high seas by reference to the adequacy of the ship[s].. equipment for the voyage’: *ibid.* Arguing from the exclusivity of flag State jurisdiction, from the emphasis placed on this in ‘the detail of the conventions and rules concerned with working and living conditions at sea, the safety of life at sea, and marine pollution’ and from Article 21 LOSC, the judgement concludes that ‘a port state has no general power to unilaterally impose its own requirements on foreign ships relating to their construction, their safety and other equipment’, when, one assumes, they leave its ports. It continued (following the same line as the US courts, described in the immediately preceding paragraph), ‘[F]or centuries national law in this area has been essentially governed by and derived from international law with the consequence that national law is to be read, if at all possible, consistently with the related international law’. See now Devine, 2000.

149. The Court was clearly influenced in its decision by the ‘non-Convention’ nature of the pleasure craft in question. In addition, the case concerned, strictly speaking, powers to control exit from rather than entry to ports and safety rather than environmental protection. This did not prevent the Court pronouncing (at p. 56) on Article 211(3) as follows: ‘states which establish peculiar requirements to prevent, reduce and control the pollution of the marine environment as a condition of entry to their ports or internal waters or for a call at their off-shore terminals are placed under certain obligations’; it does not specify which (and we disagree: see paragraph A4/158 below). It remains, however, that it is persuasive authority that
the exercise of port and coastal States’ jurisdiction over foreign vessels temporarily in their waters should not have the effect of controlling the conduct of those vessels beyond those waters, at least where to do so could be said to infringe upon their freedom of navigation. In this connection, it is interesting to note that the Commission considered the Community’s interest in search and rescue to be sufficient to allow port States to impose a requirement on third flag passenger vessels departing for a port outwith the EU to register their passengers, notwithstanding SOLAS provisions permitting exemptions in such cases (COM (96) 574 final). On the other hand, the Council Directive (1998/4) arising from the proposal does not permit this in the absence of the flag State’s consent. On the concept of ‘departure jurisdiction’ generally, see Molenaar, 1998, pp. 449-50.

A recent labour law example has arisen in Europe too. Estonian Shipping has recently appealed to the Commission over the Finnish Maritime Workers Union’s refusal, since December 1998 to unload its ships. The lower courts in Finland have upheld the boycott, which is based on complaints that longshoremen’s wages in Estonia are lower than those in Finland; they have thus disregarded the effect on Estonian Shipping beyond Finnish ports. The Finnish Supreme Court is due to hear the case in a few months’ time: see Mel Huang, ‘Estonian Shippers Complain to EU about Finnish Boycott’, RFE/RL NEWSLINE, Part II, 3 December 1999, available on-line at http://www.refrl.org. One might, however, seek to distinguish an EC ship emissions regime from this case, and the above-mentioned cases that purport to restrict port State jurisdiction on the basis of the temporary nature of vessels’ presence. Most simply one could invoke the analogy between the enforcement of the US liquor laws and that of a low-sulphur fuel requirement mentioned above. More satisfying, however, would be the argument that the ecological and economic interests of the EC in protecting EU territory and waters from acidification are even greater than any US interest in temperance or in making its fleet more competitive through ‘exporting’ its wages and labour laws or any New Zealand interest in reducing the risks and costs of merely potential off-shore search and rescue operations, and are sufficient to outweigh countervailing foreign interests in operating vessels at lower environmental standards. This is, it might be added, especially so where the EC’s land-based measures are at a high level and ship-based measures would be much more cost-effective than further land-based measures.

At the end of the day, however, this smacks more of political than legal reasoning, and any regulatory requirement that has ‘eternal’ effects is bound to be controversial. It is here that the indirect nature of economic instruments recommends them. The environmentally-differentiated dues payable by a highly-polluting ship calling temporarily at an EU port might (like regulatory standards) be set so high as to warrant either its leaving the European market or fitting equipment that it would otherwise not fit, but (unlike when regulations apply) it is left an economic choice whether to comply with higher standards or not. It is much harder to argue that economic instruments have ‘eternal’ effects than it is to do so for regulatory requirements having such effects.

As far as in-port prescription and enforcement of either an EC fuel content requirement or an EC environmentally-differentiated dues system is concerned, therefore, none of the matters set out in this sub-section appear to present an insurmountable legal obstacle, with the possible exception of the argument from the temporary nature of vessels’ presence in ports (where there is some authority to the contrary, at least in respect of regulatory requirements). On the other hand, these are strong policy arguments for constraint (see S. 2.2.6.5 below).
A4: 2.2.6.3 Legal Limitations upon Sovereignty in Ports: Treaties

153. In addition, treaties may, and often do, represent additional constraints on port State prescriptive and enforcement jurisdiction. Most treaties dealing with port matters are general in their subject-matter, notably the large number of bilateral consular treaties, and unlikely to deal specifically with environmental protection matters. On the other hand, certain bilateral treaties concerning, commerce, navigation and friendship between EC and third States contain standard customs clauses, exempting from customs duties, inspection fees and/or other taxes or charges fuel taken on board by ships registered in the third State in the Member States’ ports. Any EC Directive mandating the levy of environmentally-differentiated dues would need to exempt such fuel from the effect of its provisions or permit derogations in such cases.

154. During this century, however, an international community interest has developed in protecting the marine environment, including from ship-source pollution. This has been accompanied in recent decades by a growing awareness that flag State jurisdiction does not work well in controlling this particularly transboundary form of environmental problem. Its impact can be seen in the port State enforcement jurisdiction provisions contained in a number of IMO multilateral treaties concerned with shipping safety and ship-source pollution, commencing with the 1969 Civil Liability Convention (CLC). These include, of course, MARPOL, the relevant provisions of which are largely mirrored in the LOSC.

155. The insertion of port State control provisions in IMO Conventions was originally designed merely to ensure the workability of these Conventions in circumstances where vessels did not necessarily make regular calls to home ports, while avoiding interference in any jurisdictional matters properly dealt with in a law of the sea context. The preparatory materials for the CLC indicate that the choice fell on port State control, since it was felt that an increased role for coastal States would involve such jurisdictional changes (Off. Rec., 1969, p. 108). This might, and we think should, be taken to confirm the view among leading maritime nations that broad port State jurisdiction already existed, but unfortunately references to the port State’s role being gradually increased, have often been treated as equivalent to references to port State jurisdiction being increased.

156. The role of the port State in IMO conventions was, indeed, originally very restricted; it was limited to the inspection of certificates issued by the flag State to indicate conformity with the Conventions’ technical standards, with a view to checking whether or not the ship or its circumstances had changed since their issue. This was supplemented by no-more-favourable treatment provisions in respect of non-Party vessels, which were intended as safeguards for the flag State Parties’ benefit, to ensure that they were not placed at a disadvantage through their acceptance of the constraints set out in the Conventions. The checking role of the port State was not intended to deal with situations of flagrant and repeated failures to meet its obligations by the flag State, which was seen as properly a matter for solution by community pressure on the flag State, and not by individual port State action. Over time, however, this conception has been modified in line with the increasing disenchantment with the efficacy of the control exercised over their vessels by certain flag States, and the Classification Societies they use, and especially since the explosion in public concern during the 1990s. Thus, while the flag State’s role has remained predominant, the role of the port State in controlling compliance with international pollution prevention, reduction and control requirements has progressively increased, so as to modify the practice of non-interference by the port State in these matters. It is not entirely clear, however,
whether or not, while extending that role, any or each of these treaties also aims to reduce the jurisdiction of the port State, in view of the additional burdens they place on the flag State and of the reduction in its enforcement role.

157. It is thus important to examine the provisions of the MARPOL and LOS Conventions in order to determine to what extent, if any, they purport to have restricted, or extended, port State jurisdiction and to examine any possible treaty basis for the exercise of port State jurisdiction where it is otherwise restricted by these customary law limitations. It is unnecessary to examine in addition the provisions relating to jurisdiction of European regional agreements, such as the 1974 Helsinki Convention, as these in general follow the pattern of MARPOL (but see Ringbom, 1996, Chapter 4).

2.2.6.3.1 Prescriptive Jurisdiction:

158. The LOSC appears to deal little with the prescriptive regime of internal waters. Article 2(3) subjects the exercise of sovereignty over the territorial sea 'to this Convention and to other rules of international law', but does not mention internal waters, where, it might thus be inferred, the coastal State's sovereign powers remain unlimited by the Convention. Similarly, no equivalent to the chapeau to Article 21, concerning coastal State laws and regulations in the territorial sea, applies to limit a port State's laws and regulations to those 'in conformity with the provisions of this Convention'. As has been mentioned, Articles 25(2) and 211(3) recognise that States may 'establish particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign vessels into their ports or internal waters or for a call at their offshore terminals'. The implication appears to be that these national requirements may go beyond international standards (but see the obiter dictum in Sellers, in paragraph A3/ above). Indeed, it would be odd to permit the coastal State to adopt national regulatory standards in its territorial sea (except in respect of CDEM standards: Article 21), but not in its internal waters. The closest the LOSC appears to come in restricting port State prescriptive jurisdiction for environmental protection purposes appears to be through imposing procedural requirements, such as that on publicity in Article 211(3). It is helpful to the port/coastal State to fulfil these in any event.

159. Have EC port States voluntarily restricted their jurisdiction over foreign vessels by becoming Parties to MARPOL? The better view is that they have not, and retain a 'residual' jurisdiction to take measures going beyond the terms of that treaty, including its Annex VI. As MARPOL only prohibits (as opposed to limiting) discharges/emissions in limited circumstances, the argument can be made that an EC ship emissions regime going beyond Annex VI standards would deprive ships of an explicit 'right' to conduct those emissions permitted by MARPOL. This argument would seem, however, to elevate MARPOL standards to the status of 'mandatory maximum standards', i.e. that port/coastal States have voluntarily agreed to restrict their prescriptive jurisdiction in respect of ship-source air pollution to the limits set out in MARPOL. The reasoning would appear to be that, if no State may go beyond MARPOL standards, it follows that flag States have a right to permit their ships to emit pollutants, up to the permissible limits established for the time being. Deciding whether or not this is correct is made more difficult by the adoption in MARPOL (as well as in the LOSC) of a single set of standards for flag, coastal and port States. These are primarily directed at flag States, for which they clearly represent minimum standards. The matter is less clear with respect to coastal and port States, but the better view, it will be recalled, is that, while
MARPOL prescriptive standards are indeed maximum standards in respect of Article 218 jurisdiction and of coastal State jurisdiction exercised beyond territorial waters (and in respect of CDEM matters in the territorial sea), they are minimum standards vis-à-vis port States and coastal State jurisdiction in the territorial sea on non-CDEM matters (see paragraph A4/64 above). An examination of MARPOL’s port State control provisions does not suggest that port States have agreed to restrict their prescriptive jurisdiction to the measures set out in them. It has been argued that port States have agreed to restrict their jurisdiction thus by ratifying the Convention in exchange for flag States’ agreement to accept the minimum standards set out in it (Valenzuela, 1990), but the better view is that it does not represent such a reciprocal ‘trade-off’ or ‘package deal’ (Molenaar, 1996; Ringbom, 1996).

160. The vast majority of State practice appears consistent with the notion of port States having a broad residual jurisdiction, despite becoming Parties to IMO Conventions. There appears to be little evidence of States taking the opposite view.

161. The first articulation of such an opposing view appears to have been by the US Department of State (DOS). This arose in connection with the SOLAS, rather than the MARPOL, Convention, but is relevant not least because, since it pre-dated MARPOL, it related to the use, in the absence of agreed IMO standards specific to the marine environment, of SOLAS requirements for environmental protection purposes. In question was Section 2 of the Senate Bill (S. 2074) which, following amendment, became the US Ports and Waterways Safety Act 1972 (‘PWSA’). This provided the Secretary of State responsible for Coast Guard matters with a power to establish such additional rules and regulations as were necessary for environmental protection purposes in US ports and navigable waters with respect to, inter alia, the design and construction, maintenance and operation of ships carrying liquid bulk cargoes covered by the Act. Section 2(5) provided him with powers to issue to ships certificates of inspection and operating permits indicating their compliance with the Section and any such rules and regulations. It exempted from the certification and permitting requirements only those foreign vessels ‘having on board a valid certificate of inspection recognised under law or treaty by the United States indicating that such vessel is in compliance with the requirements of this section and the rules and regulations promulgated hereunder’ (emphasis added). The text emphasised here was objected to by the State Department, as it ‘could violate our international obligation to recognize a valid certificate of inspection issued under [SOLAS 1960, then in force]’ and ‘great difficulty would be encountered in the promulgation of environmental safety measures as to which there would clearly be no conflict with regard to our obligations under SOLAS 1960’ (DOS letters dated 23 September and 1 November 1971). This statement appears to support the view that EC in-port action to combat ship-source air pollution may not go beyond the provisions of MARPOL Annex VI.

162. On the other hand, the State Department’s argument was rejected by the US Senate (USSCA News (1972), pp. 2782-83) and not, it appears, raised by any foreign States. A group of twelve, mainly European States, including four then EEC (and ten present EC) Member States, did object to the Senate proposal, but this was arguably on policy rather than legal grounds: they stated that ‘such an action would... appear to go beyond the various conventions on ship safety to which the U.S. and [they] are... all parties’ but did not go on to say that it was thus unlawful. The main reason why the Senate rejected the argument, despite its initial
concerns, was its view that SOLAS, being concerned mainly with ship safety standards, did not cover the particular environmental protection matters at issue and that IMCO efforts were unlikely to provide adequately for those matters in a timely fashion. It thus felt obliged to rely on the USA’s broad residual port State jurisdiction.

163. In 1978, the PWSA was amended by the Port and Tanker Safety Act (‘PTSA’). Congress was again influenced by, but not hidebound by, international standards: H.R. Rep. No. 95-1384, Pt. 1, 95th Cong., 2d Sess. 69 (1978), reproduced in USGCA News (1978), 3274-77.

164. The Senate maintained the same line in favour of residual jurisdiction in the debates on the Oil Pollution Act 1990 (OPA 90). Although many arguments were made to persuade Congress ‘to remain within the international community (sic)’ (Holt and Johnson, 1995), while it chose to mandate the phasing in of double hull requirements for oil tankers trading to US ports, along the lines of the then-emerging MARPOL Annex I, Reg. 13F, it declined to add provision equivalent to MARPOL’s permission to use alternative methods of achieving the same degree of protection. It did so because it believed existing alternative methods, such as mid-deck designs, to be inappropriate in US waters. The Commission might well feel encouraged by this to suggest that an EC ship emissions regime could be similarly based on the peculiar requirements of Western European waters, at least where the problem of pollution as a result of operational emissions is arguably more acute than in other regions, or perhaps even where measures against ships can merely be shown to be particularly cost-effective counter-pollution measures.


The PWSA/PTSA does not mandate strict international uniformity. Although the legislative history of the PWSA/PTSA refers to congressional intent to abide by international agreements relating to the regulation of tankers, the statute nonetheless gives the Coast Guard specific authority to establish stricter requirements than those set by international agreements. This indicates Congress’s view that international agreements set only minimum standards, that strict international uniformity was unnecessary, and that standards stricter than international minimums (sic) could be desirable in waters subject to federal jurisdiction.

166. In INTERTANKO v. Mike Lowry, et al., INTERTANKO challenged legislation of the State of Washington stricter than OPA 90 as unconstitutional. It alleged, inter alia, that several best achievable protection (BAP) regulations (made under Wash. Rev. Code Ss. 88.46.010 et seq. and Wash. Admin. Code Ss. 317-21-010 et seq.) were pre-empted by various international treaties (viz. that they frustrated the alleged purposes and objects of Congress, to conform to MARPOL and other treaty standards) and infringed upon the foreign affairs powers of the Federal Government.

167. The US District Court dismissed the action. In discussing pre-emption, it held that the application of the OPA 90 savings clause to Washington’s pollution prevention requirements did not run foul of international standards, including MARPOL, accepted by the USA and incorporated into Federal Law. In doing so, it assumed that there is a broad residual port State jurisdiction, holding that the OPA 90 double hull requirement ‘contradicts the international standards imposed by Regulation 13F to Annex I of MARPOL, and demonstrates that Congress was not overly
concerned with maintaining uniformity with such standards’. The fact that S. 3001 of OPA 90 states, moreover, that it is in the USA’s best interests to participate in an international oil pollution liability and removal regime ‘that is at least as effective as Federal and State laws in preventing incidents’ in the Court’s view ‘anticipates that federal and state laws may be more effective than international standards’. Only in relation to the extraterritorial impact of the State laws did it utter an obiter dictum that appear to throw some doubt on the existence of a broad residual port State jurisdiction: it noted that Washington did not mandate extra-territorial provisions, seeming to imply that they would be open to challenge if it did, but it went on to note that ‘[s]ome incidental impact on extraterritorial activities is permitted to protect state resources’.

168. The Court of Appeals for the Ninth Circuit reversed the summary judgement only in part, notwithstanding a belated intervention by the United States on behalf of INTERTANKO upon its appeal. The Court suggested that ‘Passage of OPA 90 by Congress only reinforces [its] conclusion in Chevron’ (cited above), that OPA 90 did not mandate strict international uniformity. The United States’ intervenor brief, served on 7 May 1997, opposed state standards higher than federal standards in this area and contended that the District Court’s ruling failed to give sufficient weight to the substantial foreign affairs interests of the Federal Government. In the Federal Government’s view, the Federal regulatory scheme is inextricably linked with the development and implementation of international standards, in the formation of which it plays a leading part, but it only considers (citing Treaty Doc. 103-39, 103d Cong., 2d. Sess., at III (1994)) that ‘the establishment of minimum vessel standards for safety and environmental protection is generally most effective when carried out on an internationally cooperative level rather than by individual nations acting on their own (emphasis added)’. It does not deny that ‘Congress can override U.S. compliance with [an] international scheme’ (p. 35).

169. The US Supreme Court accepted that there was considerable federal interest in ensuring uniformity of standards in the area of maritime safety and that this justified remanding the case so that the Washington regulations’ consistency with this, and with the principles of pre-emption as applied to the PWSA, could be determined. Its Opinion shed no light on the existence vel non of a broad port State residual jurisdiction.

170. European and other State practice is also relevant. Although the United States declined to intervene at first instance in the INTERTANKO case, ‘the governments of 13 [largely European] ocean-going nations expressed concerns through a [note verbale from the Royal Danish Embassy to the State Department, dated 14 June1996] directed to the United States, and INTERTANKO lodged a copy of this with the District Court. The concerned governments represented that "legislation by the State of Washington on tanker personnel, equipment and operations would cause inconsistency between the regulatory regime of the US Government and that of an individual State of the US. Differing regimes in different parts of the US would create uncertainty and confusion. This would also set an unwelcome precedent for other Federally administered countries"': Supreme Court Opinion, Section I, paragraph 9. In criticising differing state standards, these States did not question the existence of a broad federal residual jurisdiction. While, moreover, MARPOL assumes that waste retained on board a vessel will be discharged to port-based reception facilities, it does not, with very limited exceptions, in terms require waste to be so discharged. It is thus arguable that Port of Bremen’s practice of requiring all garbage to be discharged from ships before departure exceeds MARPOL standards. The same will, it appears, be true, when it is
implemented in Baltic States’ national laws, for HELCOM Recommendation 19/8 on the Application of the No-Special-Fee System to ships’ waste in the Baltic Sea Area; this recommends that HELCOM Member States (and North Sea States) require all vessels to pay for the operation of reception facilities, whether they use them or not. See now also COM (1998) 452 final. Perhaps most significant in this respect was the rejection, as unnecessary, by the IMO’s MEPC of a Netherlands’ proposal (IMO doc. MEPC 40/8/3) to amend MARPOL to make explicit port States’ rights to require discharge to shore reception facilities of ships’ waste. The proposal for an EC Directive to require such discharge (COM (1998) 452 final) is certainly based on the conviction that broad residual port State rights exist.

171. On the other hand, restraint in operating a ship emissions regime in EC ports might be required in certain circumstances by the LOSC safeguard provisions discussed below (Section 2.2.6.4). In addition, respectable policy arguments for restraint emerge from an examination of the relevant treaties (set out below, in Section 2.2.6.5). Indeed, restraint was shown by the US Senate in relation to the problem surrounding Section 2 of the PWSA; it provided for the deferment of the application of the provisions permitting the prescription of unilateral standards until a reasonable period for the adoption of effective, comparable international standards had elapsed. It showed no equivalent restraint in relation to OPA 90, perhaps out of an alarmist reaction to the Exxon Valdez incident, but restraint has been shown, in relation to the implementation of many of its provisions by the US Coast Guard.

2.2.6.3.2 Enforcement Jurisdiction:

172. Can it be assumed that a State has, by virtue of its sovereignty, residual enforcement powers to match its residual prescriptive powers, notwithstanding its being a Party to IMO Conventions? If its enforcement powers are so restricted in respect of air pollution regulations, this is likely, in view of MARPOL Reg. VI/11(6), to be more evident in the LOSC than MARPOL. As has been explained, the LOSC contains several provisions concerning in-port enforcement of ship-source pollution control measures capable of application to a ship emissions regime. These will be examined in further detail below to seek any indication of an intention to restrict port or coastal States’ enforcement powers to their terms.

173. Articles 25(2) and 211(3). The LOSC contains provisions relevant to enforcement measures taken before a ship is present in port or at an offshore terminal. They appear to permit or require actions only in the territorial sea, and do not mention internal waters, but this is arguably because that was considered unnecessary. Port States have a right under Article 25(2) to take the necessary measures to prevent any breach of port or off-shore terminal entry conditions by incoming vessels; ‘necessary measures’ would appear to extend to investigating, including through physical inspection, stopping and refusing entry to vessels, including vessels engaged in innocent passage. It is not clear whether or not these articles aim to extend port/coastal State jurisdiction beyond its customary international law limits. Despite their broad wording, it would appear in principle to be inadmissible to interpret them so as to exceed what is permissible under the ‘territorial’ jurisdiction. It is hard, moreover, to accept Lagoni’s more restrictive view (1996, p. 155) that those provisions place limits on port State enforcement jurisdiction. He argues that a detention that ‘manifestly violates’ the provisions of Article 219 or 226(1)(c) (discussed below), such as ‘a detention for not complying with the port entry requirements of the port State that are more stringent than the
applicable international rules and standards’ concerning seaworthiness, is inconsistent with international law. Churchill and Lowe have also gone so far as to suggest that it is possible that ‘closures or conditions of access which are patently unreasonable or discriminatory might be held to amount to an abus de droit, for which the coastal State might be internationally responsible even if there were no right of entry to the port’ (1999, p. 63). This proposition seems, however, to be internally contradictory; the absence of a right of entry connotes that the port/coastal State is not itself exercising a ‘right’ in denying entry in the sense that it can be held to be abusing that ‘right’ by merely insisting on it; rather it is granting a unilateral privilege to vessels it permits to enter, which it can withdraw at will. Perhaps, nevertheless, the limits of these provisions should be informed by (and as far as possible equate to) those of Article 219, and otherwise by the safeguards, such as the abuse of right provision, discussed below. On any reasonable view, however, these are broad enforcement provisions, and little, if anything, is lost to the port/coastal State thereby.

174. Articles 111, 27(2) and 28(3). The LOSC also makes provision for enforcement measures to be taken after a ship’s departure. If a ship departs from a port after breaching a ship emissions law or regulation, it may be pursued, stopped, arrested and escorted back to a port of the pursuing State in accordance with the hot pursuit provision (Article 111). This, however (as a derogation from international freedoms enjoyed in the waters in question), is subject to the fulfilment of a number of closely circumscribed provisions and, in any event, would only seem to be applicable in respect of offences in ports and not at off-shore terminals, unless these are located within the territorial sea.

175. In addition, Articles 27(2) and 28(3) provide that the limitations placed on a coastal State’s criminal powers of arrest or investigation and on its civil jurisdiction over foreign vessels exercising the right of innocent passage in the territorial sea do not apply to vessels that have just left its internal waters. The investigations permitted by Article 27(2) appear to include physical inspection, both of the ship’s documents and of the ship’s condition, including the content and quality of its bunkers and the state of its pollution-control equipment (as well as operational aspects of the same). The term ‘arrest’ should probably not be regarded as restrictive, as it is likely that it is used solely because broader terms, such as ‘detention’, are linguistically inappropriate once a vessel has sailed. Once again, the only lacuna appears to be the lack of provision in respect of vessels leaving off-shore terminals. It seems clear, therefore, that the limits of this jurisdiction are informed solely by the limits of the enforcement jurisdiction in respect of this vessel when it is in port, as well as by the interests of international navigation. They do not appear to be at all curtailed by IMO conventions.

176. Coastal State In-Port Enforcement under Article 220. The majority of authors (see, for example, Churchill and Lowe, 1999, p. 350; McDorman, 1997, pp. 309-10) consider Article 220(1) LOSC to follow customary international law in permitting a State to arrest and prosecute in one of its ports a vessel that has violated its pollution laws in its territorial sea (where it enjoys sovereignty), and to have slightly expanded this by also permitting enforcement in relation to such offences in its EEZ (where it does not). The negotiating history of the provision, (described in Rosenne and Yankov, 1991, pp. 279-302, esp. 299) suggests that it might also have been intended to relate to violations within internal waters. It might thus be argued that it represents, and places on a sound treaty basis, the existence of a complete coastal State discretion to institute investigations in port and, where violations are indicated from these, legal or administrative proceedings against a
vessel, as long as it is voluntarily present in port. This would appear to extend to a power to detain the vessel; although this is not expressly stated, it is arguably unnecessary to specify in this provision (as also in Article 218) that a power to initiate proceedings includes a right to detain, where the vessel in question is in port or at an off-shore terminal rather than navigating in the territorial sea (cf. Article 220(2)).

177. Article 220 would appear to apply subject to the specific safeguards in Article 226. Although the latter is entitled, ‘Investigation of foreign vessels’, it is, among other things, the nearest LOSC equivalent to MARPOL Article 7(1), on ‘Undue delay to ships’. This provides that ‘[a]ll possible efforts shall be made to avoid a ship being unduly detained or delayed under [the MARPOL provisions relating to violations, certification and inspection and enforcement, described at paragraphs A4/219 and 220 below]’. Article 226(1)(a) provides, *inter alia*, that ‘States shall not delay a foreign vessel longer than is essential for purposes of the investigations provided for in articles 216, 218 and 220’. Article 226(1)(b) requires the prompt release of the vessel upon the posting of a bond or other financial security, and the putting in place of reasonable procedures to permit the latter, and Article 292 provides flag States Parties to the LOSC with an accelerated procedure for enforcement of that requirement by the International Tribunal for the Law of the Sea.

178. Article 220, and its requirement to avoid undue delay to ships, will, of course, become applicable to an EC ship emissions regime (as between Parties to MARPOL Annex VI) through MARPOL Reg. VI/11(6). Indeed, that the avoidance of undue delay should be seen as a general principle governing the exercise of port State jurisdiction (and not merely Articles 216, 218 and 220 investigations) might be supported by the provision elsewhere in the LOSC directly or indirectly governing the same: Article 219 requires a port State which has made release of an unseaworthy vessel conditional upon repairs being made to ‘permit the vessel to continue immediately’ these are completed; Article 23 imposes liability upon States which take environmental enforcement measures that are ‘unlawful or exceed those reasonably required in the light of the available information’; Article 300 prohibits abuses of right, which might include excessive delay caused by port State control; and Article 73(2) is the exact equivalent, in relation to the release of vessels detained for alleged fishing violations in EEZs, of Article 226(1)(b). It is difficult to avoid the conclusion that these ‘safeguard’ provisions are aiming to set out definite limits to coastal States’ powers of detention and investigation of ships in their ports. If this is so, a prompt release requirement attaches to Article 222 too (and thus in respect of vessels of non-Parties to MARPOL Annex VI).

179. In so far, however, as Article 220(1) alone applies, it is difficult to reconcile the provisions of Article 226(1)(a) and (b) with an EC regime going beyond MARPOL standards. First, the constraints on physical inspection set out in Article 226(1)(a)(i) and (iii) substantially reproduce provisions in Article 5(2) MARPOL and appear to contemplate only an exercise of jurisdiction for the purposes of enforcing MARPOL requirements. The PSC Officer’s role under both Conventions is to verify if the ship has on board a valid certificate indicating that it complies with the technical requirements of the relevant MARPOL Annex; only where he has clear grounds for believing that the condition of the ship or its equipment do not correspond substantially with the particulars of the certificates may he undertake further physical inspection. On the other hand, sub-paragraph (ii), which permits physical inspection of the vessel where ‘the contents of [its] documents are not sufficient to confirm or verify a suspected violation’, is new; it will invariably be the
case that a judgement as to a vessel’s compliance with the requirement cannot be made by way of examining her documents alone. There is, in addition, nothing in the language that suggests an intention to remove coastal States’ residual jurisdiction.

180. Article 220 and the relevant safeguards provisions, therefore, do not appear to restrict coastal States’ broad residual enforcement jurisdiction in respect of air pollution standards, except perhaps in requiring prompt release on bond of detained vessels, which is unobjectionable in any event.

181. Port State Measures under Articles 219 and 226(1)(c)

a. Introduction:

182. Article 219 requires, ‘as far as practicable’ a port State to detain in port or at an off-shore terminal (by ‘administrative measures’) a ship which is ‘in violation of applicable international rules and standards relating to seaworthiness of vessels and thereby threatens damage to the marine environment’, even, it appears, if its presence is involuntary. It seems, _prima facie_, unlikely that this provision could be applied to a foreign vessel merely by virtue of its breach of a ship emissions law or regulation (but see below, as to the meaning of ‘seaworthiness’). It is strongly arguable, however, especially as it is expressed to operate subject to the safeguards section of Part XII, that the application of Article 219 should be coordinated with that of Article 226(1)(c): Anderson, 1996, p. 175; Treves, 1996b, p. 185. This, unlike Article 219, provides for a mere power. On the other hand, it applies whenever a ship poses an unreasonable threat of damage to the marine environment, and not merely (as is the case with Article 219) when it is in breach of international seaworthiness standards whereby it poses a threat of such damage. In the light of this, it is _prima facie_ arguable that a vessel might be detained where there is evidence that, upon its departure, it would be likely to emit pollutants that would constitute an unreasonable threat to the marine environment.

183. It would be strange, however, to interpret a ‘safeguard’ provision, such as Article 226, so as to extend the scope for port State enforcement action, rather than confining it to the provision of procedures for ensuring that enforcement jurisdiction provided for elsewhere is not applied abusively. A more restricted interpretation of Article 226(1)(c) thus seems appropriate, as follows: the phrase ‘the release of a vessel’ refers back to, and is restricted to a ‘release’ made under the terms of the preceding sub-paragraph, i.e. when investigation has indicated a violation of national pollution laws and regulations or applicable MARPOL requirements. This is an interpretation more consistent with the notion that Article 226 is a single safeguard provision dealing, as a single provision ought, with related subject-matter (in its case the control of certain aspects of investigations of breaches of pollution standards).

184. This interpretation also matches the equivalent provision in MARPOL Article 5(2). Although the enforcement schemes of the two Conventions coincide to the degree described above, MARPOL’s is in fact simpler than the LOSC’s. If a port State finds that a ship is without valid MARPOL certificates or that the condition of the ship or its equipment do not correspond substantially with the particulars of the certificates, it ‘shall take all such steps as will ensure that the ship shall not sail until it can proceed to sea without presenting an unreasonable threat of harm to the marine environment’. What is an unreasonable threat appears in the first instance to be left to the port State, but the emphasis on certificates and the addition of a
power to grant such a ship permission to proceed to the nearest appropriate repair yard suggest that it is to be judged in the light of (repairable) deficiencies in the ship or its equipment that result in its failing to meet the technical requirements of the relevant MARPOL Annexes. It might well follow that Article 226(1)(c) is intended to make similar provision, albeit with less emphasis on certificates. It follows that, far from representing a very broad power to detain any vessel the release of which in the port State’s judgement would present an unreasonable threat of environmental damage (which would happily incorporate a power to detain in order to enforce an EC ship emissions requirement), Article 226(1)(c) gives only a power to detain vessels found upon investigation to be in breach of only those MARPOL technical requirements that give rise to a high risk of discharge or emissions, in breach of its provisions, at sea. Whatever is the true position, none of this is inconsistent with the persistence of a broad residual port State jurisdiction. This appears to be so whether a broad or a narrow view is taken of the concept of ‘seaworthiness’.

b. ‘Seaworthiness’:

185. Article 219 appears to require detention of a vessel which merely threatens some, i.e. de minimis, damage to the marine environment. On the other hand, it requires this threat to follow on a breach of international standards in relation to ‘seaworthiness’. The words ‘applicable international rules and standards’ might suggest that the elements of the concept of ‘seaworthiness’ lie primarily in IMO instruments. Lagoni, for example (1996), appears to regard seaworthiness to be defined in this context by a ship’s compliance with relevant provisions of SOLAS 1974 and MARPOL. This is notwithstanding that neither convention uses the term: MARPOL Reg. I/4(4) only uses the term ‘fit to proceed to sea without presenting a threat of unreasonable harm to the marine environment’; and SOLAS Regs. 6(d) and 11(a) employs only the term ‘fit to proceed to sea without danger to the ship or persons on board’. This view is perhaps reinforced by reference to Article 94(3)(a) LOSC, where seaworthiness is grouped with ‘construction’ and ‘equipment’ requirements, and listed separately from manning and signals, communications and collision-avoidance requirements. Abecassis and Jarashow (1985, S. 556) assume that the term covers many, but not all, conventional requirements relating to CDEM.

186. On the other hand ‘seaworthiness’ is also a requirement of many forms of private transaction concerning the carriage of goods by sea. While it might be possible to draw a theoretical distinction between survey and certification for seaworthiness for ‘private’ and that for ‘public’ purposes (cf. Honka, 1996, pp. 621-22), in reality the distinction is not clear-cut, not least because the majority of governments delegate their responsibilities to classification societies which conduct surveys with both sorts of purpose in mind, and that it extends to maintenance as well as survey and inspection standards.

187. On the better view, seaworthiness should be treated as a complex concept, having its meaning in general nautical usage; Article 219 does not, after all, specify the mechanism by which the ‘applicable international rules and standards’ are to be agreed. In the past at least its use appears in general to have been heavily weighted in terms of safety rather than environmental protection, and of CDEM rather than discharge/emissions or traffic standards. According to the Rosenne and Yankov (1991, p. 277), citing the Oxford English Dictionary, its basic meaning is ‘in a fit condition to undergo a voyage, and to encounter stormy weather’. ‘Taken in its context’, it continues, ‘and in the light of article 21, paragraph 2, the word in [the LOSC] may be assumed to embrace the design, construction, manning and
equipment, as well as standards of maintenance, of the ship or vessel, with particular reference to its ability to withstand stormy weather. Indeed, the term has been recently defined [in McEwen and Lewis’s *Encyclopaedia of Nautical Knowledge*, 1985] as meaning “that reasonably safe and proper condition in which a vessel’s hull and equipment, her cargo and storage thereof, machinery and complement of crew, are deemed adequate to undertake a specific sea voyage or to be employed in a particular trade”. The term also appears in the national legislation of States, as well as in transactions (such as charter-parties) of private law, and there is certainly a great deal of national case law and legislation relevant to an understanding of the term'.

188. It is, however, an ancient term that has evolved with the increase in knowledge about ship safety and operations, and it might be argued that the growing perception of the interconnected natures of ship safety and marine environmental protection should be reflected in a broad view of ‘seaworthiness’, so as to include, so to speak, a ship’s ‘environmental fitness’. Indeed, this is reflected by the wording of the very provision in question, Article 219: the word ‘thereby’ links the violation and the marine environmental damage. Most recently it has evolved in relation to the human factor and quality management systems in shipping operations, the growing recognition of the importance of which has led, for example, to the drafting of the IMO’s International Safety Management (ISM) Code. This became mandatory, on 1 July 1998, for all passenger vessels and the tankers, bulk carriers and cargo high-speed craft over 500 grt of SOLAS Parties and will become so for other cargo ships over 500 grt from 1 July 2002. It provides an internationally agreed standard for the safe management and operation of ships. Its implementation is to be assured by both internal and government audits, the latter leading to company documents of compliance and ship certificates of compliance, and a new SOLAS Chapter IX ensures that the latter at least (and probably the former too) are subject to port State control of the operational aspects of ships.

189. Significantly, the Code’s aims include environmental protection. It is thus arguable that the failure of a company or one of its ship to comply with the Code, including in relation to its environmental aspects, will be evidence of a vessel’s unseaworthiness. This might, for example, arise from a company’s failure to establish procedures for the preparation of plans and instructions for key shipboard operations concerning the prevention of pollution through emissions, as well as discharges, and to ensure that the captain and crew understand their duties in that regard (or its failure to obtain valid certification in that regard). Such operations might be taken to include the control of ships’ emissions. Under the EC’s amended PSC Directive, moreover, the consequence of a vessel’s lacking ISM certification is its exclusion from EU ports (relying on port States’ broad residual enforcement jurisdiction).

190. If seaworthiness does indeed refer to compliance with environmental protection as well as safety standards and practices, it must refer primarily to the state of a ship and its equipment, and its crew’s knowledge of essential procedures for preventing discharges/emissions, when in port before a voyage.

191. Given the lack of clarity surrounding the concept, however, it is difficult to determine to what extent Article 219 is designed to extend or alternatively, to place constraints on port States’ enforcement jurisdiction. Lagoni, for example (1996, p. 155), poses the question whether or not the International Tribunal for the Law of the Sea, when hearing an Article 292 LOSC application for prompt release of a vessel
and its crew, can question the standard of seaworthiness used by the port State in deciding to detain it. He suggests that a detention that ‘manifestly violates’ the provisions of Article 219 or 226(1)(c) is against international law and cites as an example ‘a detention for not complying with the port entry requirements of the port State that are more stringent than the applicable international rules and standards’ concerning seaworthiness set out therein. He thus argues that those provisions place limits on port State enforcement jurisdiction. If this argument is correct, it might have adverse impacts for any ship emissions regime. In our view, it is not correct. It appears, surprisingly, to deny the existence of any enforcement powers in respect of a very broad prescriptive power to establish national conditions for port entry.

c. The Article 292 Prompt Release Procedure:

192. Article 226(1)(c) LOSC provides for a further safeguard that might pose additional problems for enforcement of an EC ship emissions regime. It permits the flag State (Party to the LOSC) to seek the release of a vessel the release of which has been refused or made conditional. This is to be done ‘in accordance with Part XV’ of the Convention. This has been argued to mean primarily the Article 292 accelerated release procedure mentioned above. If this is so, it has been argued, Article 292 should also be applied to detentions made under Article 219, notwithstanding that there is no direct mention in it of Part XV or Article 292. This is because ‘it would be absurd that the international prompt release procedure should be allowed only in cases of “unreasonable” and not in cases of “reasonable” threat to the marine environment’ (Treves, 1996b; Rosenne and Yankov, 1991, p. 278). The purport of this odd terminology can be understood by a reading of paragraph A4/182 above.

193. We do not entirely accept this reasoning. The material difference between the two provisions is that 226(1)(c) involves a discretionary detention by the port State on the basis of its own judgement of environmental risk, whereas detention under Article 219 is conditional upon an ascertainment, after investigation, of a breach of an international standard, from which that threat can be considered to flow. The latter is less amenable to abuse, and more to international scrutiny, than the former. In addition, any application of Article 292 to an Article 219 detention would clearly have to apply independently of any requirement to release the vessel merely on bond, as opposed to after minimum essential repairs are made, since the whole purpose of Article 219 is to ensure that unseaworthy vessels never sail (ibid.). This would, however, be hard to reconcile with the wording of Article 292(4), which requires the detaining State authorities to release the vessel immediately ‘[u]pon the posting of the bond or other financial security determined by the court’: hence the proposal by the EC Member States to cater for the application of the accelerated procedure to such detentions through insertion of a provision in the Rules of the International Tribunal for the Law of the Sea, a proposal which however met with controversy in the Preparatory Commission for the Tribunal and was not incorporated in the Rules (UN doc. LOS/PCN/SCN.4/Add.1, paras. 59-62). In view of this difficulty, and the fact that Article 226(1)(c) does not, unlike the preceding sub-paragraph, employ the term ‘prompt release’ referred to in Article 292, it is, in our view, better to interpret the reference in Article 226(1)(c) to Part XV as a general one. On this view, Article 219 can operate free of Article 292 constraints. It remains, however, a provision of very uncertain utility in relation to ships’ emissions.
A4: 2.2.6.4 Safeguards

194. A number of safeguards, in addition, to those already discussed, apply to the exercise of port/coastal State enforcement jurisdiction, including with respect to an EC ship emissions regime.

195. A general principle of the law of the sea, non-discrimination between flags, should be taken into account (Article 227 LOSC). It should also be borne in mind that the principles of most favoured nation and national treatment of the GATT loosely apply to maritime transport and related services, and that the emerging requirements of national treatment of the 1994 General Agreement on Trade in Services (GATS) will come to apply to any EC ship emissions regime, in so far as it is capable of constituting a restraint on trade in services: see Haralambides, 1997. This will be discussed in further detail below, in Section 3.6.1.

196. Article 211(3) LOSC imposes the procedural requirements that due publicity be given to port entry requirements, and that they be communicated to the IMO.

197. Article 231 LOSC requires a port/coastal State ‘to notify the flag State and any other State concerned of measures taken pursuant to Section 6 [of Part XII, including Articles 219 and 220(1)] against foreign vessels and to submit to the flag State all official reports concerning such measures’ (cf. also Article 226(1)(c)). Since, however, the maximum obligation the port/coastal State has in respect of measures taken against violations occurring in its territorial sea is to inform the flag State of any measures taken in legal proceedings, it would seem reasonable to infer that the same restriction should apply in relation to those occurring in internal waters. There is, moreover, no express obligation in the LOSC to inform the flag or other States concerning any refusal to permit a ship to enter a port, although this is provided for in MARPOL Article 5(3).

198. The port/coastal State is ‘liable for damage or loss attributable to [it when its enforcement measures] are unlawful or exceed those reasonably required in the light of available information’: Article 232 LOSC; Article 7(2) MARPOL.

199. Article 225 LOSC requires States exercising enforcement powers against foreign ships not to ‘endanger the safety of navigation or otherwise create any hazard to a vessel.. or expose the marine environment to an unreasonable risk’. This is more easily satisfied in port than at sea.

200. Finally, Article 300 LOSC requires that ‘States Parties shall... exercise the rights, jurisdiction and freedoms recognised in this Convention in a manner which would not constitute an abuse of right’. While it has received some support in the decisions of international tribunals, however, the concept of abuse of right (abus de droit) is not widely recognised as a general principle of international law, and should be used with ‘studied restraint’: Brownlie, 1991, p. 444-46; Kiss, 1984, p. 1; Lauterpacht, 1958, p. 164. There is respectable support among leading academics for its application to port State control, but it might be that Article 300 applies as a matter of treaty rather than general customary law (in which case the failure yet to ratify the LOSC by, among other States, Denmark becomes relevant).

201. In any event its precise meaning is not clear; the dispute-settlement procedures provided under the LOSC that might be employed to clarify its meaning in a given case are themselves mandatory only as between Parties, as a matter of treaty law. One view is that it proscribes the exercise of rights in bad faith, maliciously or arbitrarily (Kiss, 1984, p. ; Cheng, 1953, pp. 121-36). But such notions are already
incorporated in the substantive principles of customary law relevant to the environment, described in Section 2.1 above. It is hardly likely that an EC ship emissions regime would fall foul of this. Another view is that it merely formulates a doctrine of reasonableness or balancing of interests: in the words of Sir Hersch Lauterpacht (1933, p. 286), it applies ‘each time the general interest of the community is injuriously affected as the result of the sacrifice of an important social or individual interest to a less important, though hitherto legally recognised, individual right’. As he then observed, in the relative absence of concrete rules, the concept offers a general principle from which judicial organs might construct an international tort law in accordance with the needs of interdependent States (ibid., pp. 295-306). It has been demonstrated above, however, that concrete rules of international law relevant to the control of ship-source air pollution have developed, such that it is strongly arguable that the abuse of rights principle does not apply to the field independently, but merely expresses the limits inherent in their formulation (which have also been described above). Any wider use of the doctrine is likely to encourage instability and relativity (Brownlie, ibid.; Birnie and Boyle, 1992, p. 126); in other words, the boundary between ‘law’ and ‘policy’ (the existence of which is itself disputed by some) disappears.

202. It might be argued, therefore, that it will be an abuse of right to apply air pollution standards in EC ports going beyond the (to be) generally accepted standards in MARPOL Annex VI. To require a vessel to comply with a minimum fuel sulphur content or NOx emission specifications and/or to pay dues differentiated according to its air pollution performance, even if the requirements are geographically limited to the port, in the knowledge that their practical effect is extraterritorial, in the sense that the ship is as a result effectively held to that same standard everywhere, can be presented as such an abuse, or at least counter to community policy. This would, however, be based on very unstable ground.

A4: 2.2.6.5 Policy Restraints upon the Exercise of Broad In-Port Jurisdiction

203. In conclusion, while the matter is not entirely certain, it would appear that there are sufficient legal grounds for concluding that EC Member States may, consistently with Public International Law, establish, and enforce in port, reasonable ship emission requirements. Indeed, in-port measures are perhaps the best approach.

204. On the other hand, as has been recognised above, there are very strong policy arguments in favour of some degree of restraint in the exercise of in-port jurisdiction over foreign vessels. The community interest in securing uniformity of standards for shipping should not be underestimated. It is best seen in UNCLOS III’s tying of CDEM standards, even in the territorial sea, to globally accepted international standards. The strength of adherence by EC Member States’ government experts to this provision was witnessed first hand by Dr. Plant of the Study team, at a 1993 meeting of government experts concerning the Torremolinos Protocol to SOLAS, where he was invited to argue that the EC could adopt unilateral CDEM safety standards binding on certain third Party fishing vessels in EC waters. The Directive (97/70/EC) incorporating the safety measures required by the Protocol into EC law bears no trace of this effort.

205. Indeed, examples of States adopting unilateral standards, such as those given in Section 2.2.6.3.1 above, while supporting the notion of a broad residual jurisdiction, are rare and limited in scope and degree. The debate over US unilateral measures, and the restraint shown by the US Senate in relation to the PWSA (see paragraph A4/171 above), clearly illustrate the preference for the adoption of global
standards to govern shipping. Indeed, while States have always exercised their normal criminal and tort jurisdiction in their ports and internal waters, they have in the past been reluctant to regulate foreign vessels’ safety and environmental conduct, precisely because these are matters that are best regulated through flag State action under global agreements. It is only with the failure of some flag States to meet their obligations that the role (though not strictly the legal powers) of the port State has been increased, in the past two decades, through PSC provisions in IMO conventions. States also fear setting up unfortunate precedents through unilateral measures that will encourage other States to retaliate or to themselves adopt restrictions upon the freedom of other States’ vessels. There appears to be nothing unique to vessel-source air pollution that suggests that it should be treated any differently from other shipping safety and pollution prevention matters, unless it be that major impacts occur to coastal States well inland as well as at sea. Even if this does not make it different, however, it has arguably been catered for at the global level, at least with respect to SOx emissions, with the adoption of the regional SOxECA concept, which embraces the protection of terrestrial as well as marine areas.

206. Policy arguments can, however, be made in the opposite direction. At least some incidental extraterritorial effect of port State measures must be expected and accepted as inevitable. The matter ultimately comes down to the reasonableness of any such effect. This raises the degree of importance of the measures to the port/coastal States in question, especially where, as in the case of MARPOL Annex VI, the global measures are seen to be lacking, inadequate or too slow in coming. Örebech (1996, p. 327) has even stated: ‘The Community plays an important role in the international society of organizations and states. Unilateral Community action might expand port State jurisdiction so as to put restrictions on the handling of goods and traffic, even though the principles enforced are not generally accepted SOLAS or MARPOL provisions. Such a development is made possible caused (sic) by the fact that State practice is far from filling the gap between what is appropriate in strict legal terms, and the remedies actually implemented in respect of ships voluntarily entering a port. Consequently, if politically valid, the Community - might in accordance with the latest US port State practice - impose advanced standards... [so contributing] to this US-initiated development and thereby complet[ing] port State jurisdiction’. The Commission’s present policy towards oil tankers shows some signs of this approach.

A4: 2.2.7 Conclusions

207. EC Member States, acting alone or in concert, have varying degrees of jurisdiction to prescribe regulatory requirements concerning SO2 and/or NOx emissions, and to carry out at-sea enforcement, in their internal waters, territorial seas and EEZs. Given the evidence that much of the vessel-source air pollution affecting Europe occurs within territorial waters, the Commission might well feel it important to require Member States to prescribe regulatory standards (for example on the sulphur content of bunker fuels used and on NOx emissions) applicable to their territorial seas (in addition to their internal waters); in doing so, however, it would be wise to ensure that any CDEM standard conforms to GAIRAS, if any.

208. In other respects, however, for practical and policy reasons, emphasis should, in our view, be placed on in-port measures. These can include in-port enforcement of EC coastal State standards prescribed in respect of foreign ships in their territorial seas (or even their jurisdictional waters). They can also include prescription and enforcement of standards in relation to ships voluntarily entering the State’s ports. In principle such port State prescriptive and enforcement
jurisdiction is unlimited, except to the extent that limitations are inherent in the temporary and voluntary presence of a foreign vessel there, and subject to certain procedural safeguards. The EC is thus, on the better view, free to establish an EC ship emissions regime in its ports at standards higher than those set out in MARPOL Annex VI. On the other hand, very strong policy arguments urge restraint upon it in doing so. It is thus, in our view, very important that it exceeds MARPOL standards only where it can demonstrate a strong regional interest in doing so, that outweighs the global community interest in uniformity of shipping standards, and gives maximum publicity to the measures and the reasons for them.

209. If, indeed, an economic instruments approach is preferred, it is strongly arguable that any environmental differentiation reflected in shipping dues payable at EU ports should attempt to reflect only the marginal environmental costs of the use of high-sulphur bunkers and/or ‘excess’ NOx emissions in EU waters by ships subject to payment. Alternatively, but with less certainty, one might extend it to such use or emissions adversely affecting EU waters or territory, even if occurring beyond EU waters. It is, in our view, improbable that this is strictly required by international law (the Swedish system, for example, is not so restricted: see Appendix 3, Section 1), but it would assist in offsetting any legal doubts, while also serving to defuse political arguments that the dues would have unacceptable impacts on foreign shipping, especially given that ships engaged in long-distance voyages might not always be able to find low sulphur bunker fuels in other parts of the world. On the other hand, it is likely to prove more administratively burdensome and difficult to enforce, to the extent, perhaps, that it would be unworkable. We do not, therefore, make the suggestion strongly. Of course, if such differentiation were to reflect the marginal environmental costs arising only from emissions in EU territorial waters, even less political opposition is likely to arise from third States, given that only sovereign ‘territorial’ (and not ‘extra-territorial’) areas will be covered.

A4: 3 The Regulatory Treaty Baseline:

MARPOL Annex VI; the 1979 LRTAP Convention and Protocols; and other Regional Treaties

A4: 3.1 MARPOL Annex VI

210. MARPOL Annex VI was adopted by the Marine Pollution Conference of September 1997. Its salient features, other than the jurisdictional provisions discussed above (especially in Section 2.2.4), as they relate to SO2 and NOx, can be described as follows.

211. The Annex is attached to a Protocol to MARPOL 73/78, which will come into force, thereby adding it as an integral part of the Convention, twelve months after at least fifteen States the combined merchant fleets of which constitute at least 50% of the world’s gross merchant tonnage have become Parties. At present only Norway and Sweden, representing a gross tonnage of 4.83%, have ratified, but several other European States are in the process of becoming Parties (IMO doc. MEPC 43/21, Annex 16) and the IMO’s target date for satisfaction of the conditions for entry into force is 31 December 2002. Thereafter, if the conditions are not met, the next following meeting of the IMO’s MEPC will urgently initiate a review to identify any impediments to entry into force and possible remedial measures (Resolution 1 of the Conference). This illustrates a desire on the part of the international community that the Annex’s standards should be accepted as the governing global standard preferably before 2005.
212. Annex VI purports to have taken a precautionary approach; the third preambular paragraph recalls Principle 15 of the 1992 Rio Declaration on Environment and Development. The substance of the Annex, however, especially when viewed in the light of the IMO MEPC’s stated aim, in September 1991, to reduce SO2 emissions from ships by at least 50% by 2000 and NOx emissions by at least 30%, gives much cause to doubt this. The USA, indeed, has suggested that the NOx provisions as adopted will not achieve a 30% reduction and that they be accordingly amended: IMO doc. MEPC 44/11/7.

213. Reg. VI/14(1) requires that the content of any fuel used on board ships entitled to fly the flag of or operating under the authority of a State Party shall not exceed 4.5% m/m. This is a very high threshold and on any view exceeds the current worldwide average and, indeed, the vast majority of all bunkers used on ships. There is no express commitment in the Protocol to consider a later reduction in the threshold. On the other hand, the IMO Guidelines for Monitoring the World-wide Average Sulphur Content of Residual Fuel Oils Supplied for Use on Board Ships (the Sulphur Content Guidelines), adopted under Reg. VI/14(2), have a secondary purpose, ‘to re-open the discussion in MEPC on measures to reduce SOx emissions from ships, should the average sulphur level in fuels, calculated on the basis of these guidelines, show a sustained increase’ (paragraph 1). These guidelines are of potential utility to the Community, for reasons set out in Section 6.1 below.

214. As a regional exception to this weak global standard, the Baltic Sea Area is designated as a Sulphur Dioxide Emission Control Area (SOxECA), where, after a phase-in period of a further year, a ship must use fuel oil with a sulphur content of 1.5% or less: Reg. VI/14(3)(a). As an alternative, it may apply an exhaust gas cleaning system to reduce its total emissions to 6g SOx/kWh or less, calculated as the total mass of SO2 emission, or employ an equivalent technological method: Reg. VI/14(3)(b) and (c). In practice, however, these are less likely to be used, as ships will generally wish to avoid both the capital costs of the necessary equipment and the production of sulphur waste (see Section A5/5.1 below). If a ship does employ the first method of compliance, and it either is not entirely dedicated to intra-Baltic trade or is not operated in all waters with low-sulphur bunkers (i.e. if it uses separate fuel oil to comply with Reg. VI/14(3)(a)), it must allow sufficient time for the fuel oil service system to be flushed of all fuels exceeding the lower limit before entering the Area and must record the volume of low-sulphur fuels in each tank and the details of when change-over is complete in its log book (Reg. VI/14(6).

215. Other areas may be designated SOxECA, upon application, if IMO finds they satisfy the criteria set out in Appendix III to the Annex. There is no geographical limit to these other than that implied by the criteria.

216. By an amendment adopted at MEPC 44, in March 2000 (MEPC 44/WP.6, paras. 11.25–28), the North Sea, including the English Channel, will become a further SOxECA. As the two designated SOxECAs are adjacent, a larger number of vessels will be caught by the low-sulphur fuel requirements than would have been the case had they not been adjacent. One should note the difficulty of satisfying the criteria in respect of such Areas, as compared to other forms of special pollution prevention areas permitted under LOSC or MARPOL standards. In addition it can be suggested that, in so far as the international community, through the IMO, is satisfied that the North Sea has met the specified criteria for SOxECA status, these same criteria might legitimately be employed by the EC to justify taking
equally strong, or perhaps even stronger measures, both in those waters and in
others (like the Mediterranean) wherever comparable conditions exist.

217. Reg. VI/18 makes provision for fuel oil qualities, including the provision of bunker
delivery notes by suppliers, which are to record, among other things, the sulphur
content of the fuel (Reg. VI/14(5)), and which are to be retained on board for at
least three years, together with, for at least one year, a representative sample of
fuel from each bunkering. The significance of this in relation to enforcement and
compliance is discussed below (at paragraph 4/440).

218. The NOx provision is addressed to ships’ engines rather than ships directly. The
operation of diesel engines with a power output of more than 130 kW installed on a
ship constructed on or after 1 January 2000, or which undergo a major conversion
on or after that date, is prohibited, except when its emission of nitrogen oxides fall
within specified limits, depending on the rated engine speed; for engines with rated
speeds below 130 rpm, for example, this is 17g/kWh. Pending the coming into
force of the Protocol, engines falling within those categories are expected to
conform on a voluntary basis. The survey of engines and equipment for
compliance is to be in accordance with the mandatory Technical Code on Control
of Emissions of Nitrogen Oxides from Marine Diesel Engines (NOx Technical
Code); Reg. VI/5(4). This obviates the need to test individual engines, as opposed
to engine types. When using blended oils, test procedures and measurement
methods are required to be in accordance with the Technical Code, taking into
account the test cycles and weighting factors set out in Appendix II to Annex VI. As
an alternative, an exhaust gas cleaning system complying with the same Technical
Code or any other equivalent method may be used. The permitted emissions are
represented as a line on the so-called ‘NOx Curve’ in the Technical Code. The
controls thereby represented are generally regarded as likely to reduce emissions
by some 30-50% compared to the average for all marine diesel engines in
operation in 1990. When compared with the performance of engines presently on
the market, however, the reduction even for these engines arguably pails into
insignificance, and the exemption of existing ships’ engines (against Norwegian
objections) means the total reduction in global NOx ship emissions is of the order
of less than 1% p.a. (Ninaber, 1997). On the other hand, provision is made for five-
yearly reviews of the emissions limits by the MEPC, ‘as a matter of urgency’,
following the 1997 Protocol’s entry into force (Conference Resolution 3).
Meanwhile, a drafting group has been set up to rectify technical errors in and
review the Code at MEPC 44: IMO doc. MEPC 43/21, paragraph 10.18.

219. The traditional MARPOL compliance and enforcement scheme involves:

the cooperation of coastal states, port states, and flag states in a system of certification,
inspection, and reporting whose purposes are to make the operation of defective vessels
difficult or impossible and to facilitate the performance by flag states of their primary
jurisdiction to prosecute and enforce applicable laws (Birnie and Boyle, 1992, p. 268).

220. Both flag and coastal States Parties will be required, by MARPOL Article 4, to
prohibit violations of Annex VI requirements, the former by its vessels, the latter
‘within its jurisdiction’. This is a geographical term defined by reference to Article
9(2), which in turn refers to general international law. The port State powers of
inspection under this scheme are broad and of two types: (a) those which are
limited to verifying that there is on board a valid certificate’, that is ‘unless there are
clear grounds for believing that the condition of the ship or its equipment does not
 correspond substantially with the particulars of that certificate’ (Article 5), which
thus relates to CDEM standards. This has recently been extended to permit control
of operational requirements related to pollution prevention; and (b) those intended to verify whether the ship has violated the Convention’s discharge provisions (Article 6). In these cases no ‘clear grounds’ are necessary before the port State can proceed to physical inspection. Under Annex VI the system of survey and inspection and certification of ships in respect of polluting emissions (Regs. VI/5-10) applies to ships of 400 gross tonnage or above (and to certain offshore platforms, omitted from consideration in this Study). It parallels closely the system applicable under other MARPOL Annexes. The same is true of the provisions on ‘Port State Control on Operational Requirements’ (Reg. VI/10) and on ‘Detection of Violations and Enforcement’ (Reg. VI/11), although the latter has merited separate discussion above (in Section 2.2.4), in view of the uniqueness of its paragraph (6). The main concern remains the apparent absence of any effective method for ensuring compliance with SOxECAs: see, for example, IMO docs.: MEPC 37/22/Add.1, Annex 16 (FoEI); MEPC 39/6/21 (BIMCO); and MEPC 41/8/3 (ICS).

221. As is normal, there are general exemptions in Annex VI for emissions necessary to save ships or life at sea and for those caused by damage to the ship or its equipment other than through the intent or recklessness of the owner or master, and provided all reasonable preventive precautions are taken once the damage is discovered: Reg. VI/3. Finally, ships entitled to sovereign immunity are, as usual, exempt from the standards, but State Party Administrations are expected to ensure that they are operated in as close conformity to them as is reasonable and practicable.

222. The Annex VI and Technical Code provisions are not the final word, in that four further sets of guidelines under the former and one set under the latter are still under preparation by the IMO: see IMO docs. MEPC 41/8, Annex; MEPC 43/10/2; and MEPC 43/21. These, on the other hand, relate mainly to technical matters.

223. The Annex VI provisions on sulphur can be seen as part of a package deal, involving the 4.5% global cap, the Baltic Sea SOxECA and the commitment (since fulfilled) to producing guidelines to govern the monitoring of the average sulphur content of marine bunkers. There was, of course, very strong opposition to a global sulphur cap lower than 4-5% and to the proliferation into the North Sea and beyond of SOxECAs, particularly from three sources: (i) the oil industry; (ii) States operating open shipping registries (Ninaber, 1993, suggests that these combined in the IMO’s BCH Sub-committee debates after 1991 to delay completion of the IMO’s work on air pollution from the original target date of 1993); and (iii) a number of developing countries, prominent among which were oil-exporting countries, particularly Mexico, a producer of high-sulphur petroleum, which led a group of Latin American countries in opposition: see, for example, IMO docs. MEPC 37/13/21 and 38/9/11. The shipping industry, moreover, was prepared to accept a lower global sulphur cap in preference to a system that permitted regional variations on a high global cap: see, for example, IMO docs. MEPC 39/6/21 (BIMCO) and MP/CONF.3/17 and MEPC 41/8/3 (ICS). On the other hand, perhaps perversely, several States argued from the prospect of the adoption of SOxECAs in areas of high risk from ship-source air pollution that no cap at all was needed where such risk was not proven, i.e. that there was no need for a global cap: see, for example, IMO docs. MEPC 39/6/9 (Australia, Singapore, Vanuatu) and 39/6/17 (Bahrain). All these same stakeholders, or their regional equivalents, are likely to oppose, on the same grounds, EC efforts to go beyond the MARPOL standards in EU waters as well as efforts to designate further European waters as SOxECAs.
224. Several EC Member States (including Finland, Germany, the Netherlands and Sweden) are on record as having preferred a global sulphur cap of 3.5% or less during the IMO negotiations; indeed, Julius Lassig of Finland said his country preferred a global cap of 1.5% (Reuters, 25 September 1997). The EC Commission’s original Proposal for the 1999 Liquid Fuels Directive included such a limit for marine bunker fuels, although this was later dropped. The Netherlands and UK were instrumental in a group of experts’ suggestion, at MEPC 39, to achieve a reference value under which a 4.5% cap might be reduced to 4% twelve months after the world-wide average sulphur content was found to exceed that value by an amount such as 0.2%: MEPC 38/WP.5. They were leaders in drafting the Sulphur Content Guidelines. Greece, rather less ambitiously, and bearing in mind its shipping interests that make it wary about SOxECAs, proposed that a global cap of 4.5% could be reduced to a figure 1% less every five years until a global figure of 1.5% was achieved, whereupon SOxECAs could be phased out, and a global standard prevail: MP/CONF.3/32. Member States, such as the Netherlands, were also behind attempts to relax the entry into force requirements, in order to permit the Annex to come into force more certainly and quickly.

A4: 3.2 1979 Long-Range Transboundary Air Pollution Convention and Protocols

225. In its Declaration upon affirmation of the LOSC, concerning the competence of the Community with regard to matters governed by it, the EC lists the 1979 Geneva Convention on Long-Range Transboundary Air Pollution (LRTAP Convention) as a relevant treaty, in relation to which the Community shares competence with its Member States. This Study must, therefore, address the interface between that convention (and its Protocols), the LOSC and MARPOL.

A4: 3.2.1 General

226. The LRTAP Convention is a regional treaty. Given, moreover, the absence of sophisticated regimes on long-range transboundary air pollution dher than in Europe and North America, it is unlikely to represent general customary international law (although it might represent regional custom). Its, and its protocols’, application, therefore, is limited to States Parties. While both the Community and all EC Member States are Parties to the LRTAP Convention, which now has 41 European Parties, plus Canada and the USA not all are Parties to its various Protocols. At present there are 21 Parties to the First Sulphur Protocol, including a number of EC Member States, but not (for various reasons) Greece, Ireland, Portugal, Spain, the UK nor the Community itself (although several of these have complied in practice with its standards). There are 26 Parties to the NOx Protocol, including all EC Member States, except Portugal, which has not even signed, and the EC itself. Finally there are 22 Parties to the Second Sulphur Protocol, including 13 Member States and the EC itself; Belgium has merely signed, and Portugal has not even done that. In so far as each of these instruments is consistent, therefore, with the imposition of coastal or port State air pollution requirements upon foreign ships, to that extent the legal basis for an EC ship emissions regime is strengthened, but only as between States Parties to the instrument in question.

227. As the LRTAP Convention’s main concern is clearly with the protection of terrestrial areas from the adverse effects of air pollution, and as its definition of ‘air pollution’ is much broader than that of ‘pollution of the marine environment’ in Article 1(4) LOSC, it is of potential importance in so far as it adds to the measures EC Member States may take to control ship-source air pollution on the basis of the customary international law, the LOSC and MARPOL.
228. The wording of the Convention appears technically broad enough to extend to certain measures applied by EC Member States to foreign vessels. The definition of ‘long-range transboundary air pollution’, in Article 1(b), extends, as has been explained, to air pollution ‘whose physical origin is situated wholly or in part within the area under the national jurisdiction of one State and which has adverse effects in the area under the national jurisdiction of another State (emphasis added)’. It seems quite clear that ‘national jurisdiction’ in the sense both of the source and of the area affected extends to territorial waters, and possibly (with regard to pollution from offshore platforms) also to the continental shelf - a well-established concept in 1979. It is also arguable, given that the term ‘sovereignty’ is not used in preference to ‘jurisdiction’, that it also extends to the EEZ, at least in the sense of the source, and also in that of the area affected to the extent that the coastal State’s fisheries or other interests can be shown to be adversely affected. On the other hand, the EEZ concept was quite new in 1979, and it cannot be assumed that the LRTAP negotiators had it in mind, especially given the undeveloped nature of thinking on ship-source air pollution controls (in that zone or indeed anywhere) at the time.

229. Be this as it may, the lack of specific mention of ‘ships’ (as opposed to ‘areas’) as sources appears to mean that the definition leads to strange results; thus, for example, polluting effects felt in France are to be considered ‘long-range transboundary air pollution’ for the Convention’s purposes where they arise from a ship (British or foreign) in the UK’s waters but not where they arise on the high seas nor from foreign ships in France’s own waters. From France’s point of view, however, any pollution arising from foreign vessels at sea (at least beyond its territorial sea) should be regarded as transboundary pollution. It is not clear, moreover, what limiting effect the term ‘national’ appearing before ‘jurisdiction’ is intended to have.

230. The conclusion might well be drawn, therefore, that the LRTAP Convention was not negotiated with a view to including vessel-source pollution within the definition of ‘long-range transboundary air pollution’ to which it applies. This is perhaps confirmed (as well as excused) by the fact that the Convention itself does not really impose any fresh substantive obligations on States Parties: Fraenkel, 1989, esp. pp. 456-69; Hohman, 1994, p. 281. Its main value has been in providing a framework for co-operation and for the development of further measures of air pollution control: Birnie and Boyle, 1992, p. 399. It is necessary, therefore, to look to the relevant protocols to see if this regional regime enhances the legal basis for a possible EC ship emissions regime. One should also bear in mind that a number of EC/EEA Member States have gone beyond the strict requirements of several of the Protocols.

A4: 3.2.2  First Sulphur Protocol

231. The First Sulphur Protocol, is silent on the questions whether or not it applies to ships and/or to Parties’ maritime zones, but it is in any event now of very limited significance. Its emphasis is upon the preparation of national programmes to achieve in each case a 30% reduction of emissions or transboundary fluxes from 1980 levels by 1993. This is calculated, in respect of Europe, using EMEP models, which are essentially limited to the European land mass: see Article 1(4) of the 1984 EMEP Protocol. It thus appears to exclude ship-source pollution from its scope.
A4: 3.2.3 NOx Protocol

232. The NOx Protocol does not expressly state that it applies to ships or maritime zones. Its emphasis is also upon the preparation of national programmes to achieve in this case, first a freeze on national average emissions (generally at 1987 levels) for the period 1987-1996 (Article 2(1)), and subsequently reductions to achieve critical loads (Article 2(3)), as calculated in Europe through EMEP models. The wording of Article 9 also suggests that the only geographical areas in mind are land areas. On the other hand, the sixth paragraph of the recital states that Parties are determined to achieve reductions ‘by, in particular, the application of appropriate national emission standards to new mobile and major new stationary sources and the retrofitting of existing major stationary sources’. In addition to the initial measures to achieve the freeze on emissions, therefore, Parties ‘shall in particular, and no later than two years after the date of entry into force’ apply such standards to major new stationary sources and/or source categories and new mobile sources in all major source categories, based on BATNEEC and guidance set out in the Technical Annex, as well as to major existing stationary sources’ (Article 2(2)). While the reference to stationary sources as ‘plant’ in Article 2(2)(c) suggests that shipping in port cannot be argued to be such a major stationary source, even if it otherwise meets the definitions in Article 1, it is arguable that a ship built two years after the Protocol’s entry into force (i.e. after 14 February 1993) is a new mobile source: Article 1(12) defines this as ‘a motor vehicle or other mobile source’ manufactured after that date, and there is no reason why the second phrase should be interpreted, under the *eiusdem generis* principle, as limited to a category similar to the first (i.e. to other forms of vehicle). It follows, if this is correct, that ten European States, including Bulgaria, Norway, Russia and Switzerland, as well as Canada and the USA, in addition to all the EC Member States except Portugal, should include measures to control NOx emissions from vessels built since 1993 in their national plans, at least in order to apply BATNEEC to them, and otherwise as necessary to achieve the Protocol’s requirements.

A4: 3.2.4 Second Sulphur Protocol

233. The Second Sulphur Protocol is of greatest potential significance to this Study, since it relates most closely to the possibility of EC regulation of the sulphur content of fuel oil, or of SO2 emissions, in adjacent waters. It is thus helpful that it is clear in its application to ships and maritime zones. Article 1(12) defines ‘Sulphur emissions’ as (in relevant part) ‘all emissions of sulphur compounds… to the atmosphere originating from anthropogenic sources excluding from ships in international traffic outside territorial waters’. It appears to follow that seven non-EC European States, as well as Canada, are obliged, in addition to thirteen EC Member States Parties to the Protocol, to control, in accordance with the Protocol’s provisions, emissions from vessels flying their flags (and engaged in international trade) that occur while they are in the territorial waters, including the ports, of any mainland European coastal State Member of the UNECE; in addition, Belgium and several other Signatories are required not to take any steps inconsistent with this obligation, pending their subsequent ratification or accession, if any. Portugal has no obligation, except to the extent that the EC, as a Party, appropriately exercises its competence in this regard.

234. It is perhaps unfortunate that the only significant flag States among the present seven non-EC European Parties are Norway and Switzerland. Nevertheless, the Protocol represents a regional measure of air pollution control expressly applicable to ships, even if this is only in relation to areas under States Parties’ sovereignty. It was developed in parallel with the on-going (and slow) IMO preparations leading to
the adoption of MARPOL Annex VI, but makes no reference to, and does not tie States Parties to, any actual or potential global standard in relation to ships. It thus represents a departure, albeit a limited one, from the policy of uniformity of standards in relation to ships. It also appears consistent with the possible prescription of CDEM measures going beyond GAIRAS within a coastal State's territorial sea. On the other hand, it appears to envisage that this will be done, if at all, not by the coastal but by the flag State, for which, of course, GAIRAS represents a minimum, and not a maximum, standard: the Article 2 ‘basic obligations’ provide that Parties ‘shall control and reduce their sulphur emissions (paragraph (1)) and ‘as a first step’ ‘shall, as a minimum reduce and maintain their annual sulphur emissions’ in accordance with timings and levels set out in an annex (paragraph (2)). It is arguable that the Article 2(4) obligation upon Parties to ‘make use of the most effective measures for the reduction of sulphur emissions appropriate in their particular circumstances’ is not restricted to the flag State but extends to coastal State measures in respect of ships, but this is defeated by the fact that three of the suggested measures can only be effected by the flag State. A potential clash of treaties does not, therefore, arise (if it did, the LOSC would prevail, under the terms of Article 311). The fourth suggestion is nevertheless of interest in this context. It is of measures ‘to reduce the sulphur content of particular fuels and to encourage the use of fuel with a low sulphur content, including the combined use of high-sulphur with low-sulphur or sulphur-free fuel’ (a similar provision with respect to the sulphur content of gas oil appears in Article 2(5)(c)). At the very least, therefore, the Protocol provides a basis for the EC encouraging non-EC Members of the UNECE to consider requiring their vessels to use low sulphur fuels when sailing in the territorial seas of EC Member States.

235. Also noteworthy is Article 2(6) of the Second Sulphur Protocol, which permits Parties to ‘in addition, apply economic instruments to encourage the adoption of cost-effective approaches to the reduction of sulphur emissions’. This gives some additional legal support, at least in the regional context, to the suggestion that EC Member States are entitled to operate a system of differentiated shipping dues aimed at encouraging the use of low sulphur fuels by vessels in their territorial waters, and to a possible EC regime mandating such dues.

236. In addition, the treaty provisions are capable of further development in relation to ship-source air pollution, through the review mechanism. Finally, the establishment of an Implementation Committee under Article 7 is a useful mechanism by which to aid and encourage compliance, in particular by European States with economies in transition which therefore have difficulties meeting their obligations.

A4: 3.2.5 The Multi-Pollutants Protocol

237. The Multi-Pollutants Protocol deals with the period up to 2010. It provides for binding national emission ceilings and limit values for emissions from stationary and mobile sources, as well as fuel standards. The limit values and fuel standards are in general mandatory, but countries may, as an alternative to applying the Protocol’s standards, apply different emission reduction strategies that achieve equivalent overall emission levels for all source categories together. The Protocol is largely driven by health, rather than acidification, effects (Björkbo, 1999). Nevertheless, as long as the disappointingly low national emission ceilings set by a number of States, including EC States, does not undermine it (see ENDS Report 296, p. 44), it should, by setting ambitious targets and dealing with several environmental effects and several pollutants simultaneously and in co-ordination,
have important impacts on acidification in the EU and greatly improve the cost-effectiveness of controlling air pollution.

238. Perhaps surprisingly, in view of the conclusion of MARPOL Annex VI and the growing awareness of the contribution of shipping to the relevant emissions, these obligations do not appear to be directed at shipping at all.

239. This is not to say that the Protocol is entirely irrelevant to this Study. In particular, several of its ancillary provisions provide useful encouragement to the tackling of ship-source emissions, including through the use of economic instruments. Thus, Article 5(2) (‘Public Awareness’) encourages Parties to ‘make information widely available to the public with a view to minimizing emissions, including information on: (a) Less polluting fuels, renewable energy and energy efficiency, including their use in transport’. Article 6(1) (‘Strategies, Policies, Programmes, Measures and Information’) requires each Party, ‘as necessary and based on sound scientific and economic criteria’, to:... (d) Apply measures to decrease the use of polluting fuels; (e) Develop and introduce less polluting transport systems...; (g) Encourage the implementation of management programmes, including voluntary programmes, to reduce emissions and the use of economic instruments...; and (h) Implement and further elaborate policies and measures in accordance with its national circumstances, such as the progressive reduction or phasing-out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all sectors which emit sulphur, nitrogen oxides, ammonia and volatile organic compounds which run counter to the objective of the Protocol, and apply market instruments (emphasis added)’. While this is expressed to be ‘in order to facilitate the implementation of its obligations under article 3’, it still gives some impetus to the taking of similar measures in relation to ship emissions, especially in the form of economic instruments. Finally, Article 8 (‘Research, Development and Monitoring’) requires Parties to ‘encourage research, development, monitoring and cooperation related to... (j) The management of transport demand and the development and promotion of less polluting modes of transport’.

240. Ågren noted, moreover, (1999, paragraph 3.2) that, at the final preparatory meeting, ‘The traditional disagreement on whether or not the protocol should include mandatory emission and fuel standards remained, and - as so many times before - the end result was a compromise. Some countries (for example Germany, Switzerland, Austria, the Netherlands, and France) are generally in favour of mandatory standards, at least for all new major source categories and - in the case of some source categories - also for existing sources. Others, such as the UK, Norway, and Russia usually oppose any type of mandatory such standards. Some countries can accept emission standards for new sources, but not for existing ones. Among these you find Italy, Slovakia, Spain, Ukraine, Portugal, Canada and the USA.’ The result is a compromise reflected in the text. It will be interesting to see if the same dynamics would apply to a Commission proposal for legislation on the sulphur content of ships’ bunkers.

241. Finally, the draft preamble notes that ‘this Protocol is the first agreement under the Convention to deal specifically with reduced nitrogen compounds’ (defined in Article 1(9) as ‘ammonia and its reaction products’) and ‘that measures taken to reduce the emissions of nitrogen oxides and ammonia should involve consideration of the full bio-geochemical nitrogen cycle and, so far as possible, not increase emissions of reactive nitrogen including nitrous oxide which could aggravate other nitrogen-related problems (see now the discussion in Appendix 2 above and Section A6/2 below). We submit that any EC ship emissions regime
should do the same. As to synergies with greenhouse gases in general, see Section 3.5 below.

A4: 3.2.6 Conclusions

242. Only the Second Sulphur Protocol adds significantly to the legal base for potential action at EC level to establish a ship emissions regime, and it suffers from the drawbacks that it appears to place the emphasis on flag rather than coastal States and has relatively few non-EC Parties that are important flag States. The impact of the Multi-Pollutants Protocol will be largely inspirational, especially in relation to the use of economic instruments.

A4: 3.3 Regional Seas Regimes

243. Specific action against ship-source air pollution under the regional seas programmes relevant to European waters has been limited, partly because of the relative novelty of the perceived problem and partly because any such efforts were, until very recently, directed at assisting the IMO to achieve suitable global standards, including with respect to globally-mandated higher regional standards (in SOxECAs) in the Baltic Sea and North Sea Areas. Added to this might be the fact that the majority of non-EC Member States in the North Sea and Baltic Sea Areas are nevertheless EEA Members or Candidate States seeking to achieve a high degree of convergence with EC environmental laws. It is thus a reasonable expectation that an EC ship emissions regime will encounter few, if any potential difficulties presented by the need to accommodate Member States’ obligations towards third States undertaken in pursuance of regional seas treaties or arrangements.

244. Although the relevant instruments do not expressly deal with ship-source pollution, the fact that they establish organs which respond to new developments through recommendations, and indeed that a ‘second generation’ of instruments has been negotiated, means that they endorse a number of relevant principles only inadequately dealt with, if at all, by the LOSC. The 1974 Helsinki Convention (Article 3(2)), the 1976 Convention for the Protection of the Mediterranean Sea against Pollution, as amended in 1995 (1995 Mediterranean Convention - Article 4(3)(a)) and the North Sea Declarations all espouse the precautionary principle. Article 15 of the 1992 Helsinki Convention of the same name (not yet in force) and the 1995 Mediterranean Convention (Articles 4 and 10) also recognise the needs for sustainable development and protection of biodiversity (Protocols of 1982 and 1995 to the 1976 and 1995 Mediterranean Conventions respectively, concern specially protected areas in the Mediterranean); and it is, of course, impossible to effectively realise these aims without a marine environment free of significant pollution (Churchill and Lowe, 1999, pp. 336-37), including ship-source air pollution. These principles are thus relevant to the following discussion.

A4: 3.3.1 The Baltic Sea Area

245. The 1974 Helsinki Convention, it has been stated, does not explicitly mention air pollution from ships. The Baltic Marine Environmental Protection Commission (HELCOM) established under it, however, regards it as simply ‘a part of operational discharges from ships’: cf. Baltic Sea Environment Proceedings No. 56, 1994, p. 61. It has thus established an Ad Hoc Working Group on Air Pollution from Ships under the authority of its Maritime Committee, which is tasked with, inter alia, ‘elaborating standards and criteria for the abatement of air pollution from ships’ (ibid.). It has, in addition, produced several Recommendations in the field,
including two relevant to NOx and/or SO2 emissions (Recommendations 11/12 and 13/15). Unfortunately, neither is very ambitious.

246. The first was essentially limited to recommending Parties to the Convention to co-operate within IMO in promoting early and effective global measures for minimising air pollution from ships, including in relation to NOx and SO2. It also, however, recommended them to take actions ‘to limit to an environmentally acceptable level as soon as possible the emission of harmful components in exhaust gases by way of: (i) developing suitable quality standards for heavy fuels, in particular concerning the content of sulphur… and; (ii) applying best available technology to reduce nitrogen oxides and sulphur oxides emissions’.

247. The second merely concerned early measures to reduce the sulphur content of marine fuel oils in the Baltic Sea Area, as well as facilitating the introduction of global measures. In particular, it recommends Parties to encourage industry to supply and shipowners to use marine fuel oils with a sulphur content as low as possible, and in any event not exceeding 1.5% by weight, as well as to conclude, not later than 1 January 1995, bilateral agreements for ships trading in the Baltic in regular traffic between the two countries in question to use only such fuel oils. Like MARPOL Annex VI, it also permits States to agree on the use of exhaust gas treatment systems on board ships as an alternative to a sulphur content requirement, but, unlike MARPOL Annex VI, it takes a very broad view of the application to this of the precautionary principle. It states that their use is acceptable only ‘provided that such systems and methods are proven to cause no harm to the marine environment’. This erects another hurdle for those advocating the notion that sulphur dioxide emission regulations might in practice involve end-of-pipe solutions as opposed to fuel content requirements. Finally, it recommends the establishment of provisions by the HELCOM Maritime Committee for control of compliance with these requirements by Administrations or Port Authorities.

248. HELCOM’s web-site indicates its view that neither of these Recommendations is fully implemented, although Sweden and Åland (Mariehamn) have, of course, acted unilaterally, in the manner described in Appendix 3. In practical terms, moreover, they will be superseded, to the extent that they relate to a 1.5% sulphur content requirement, by MARPOL Annex VI a year after it has come into force. They appear to pose no problems with respect to a future EC ship emissions regime, not least because, while they are intended to be seriously considered for incorporation or reflection in HELCOM Member States’ national laws, and, while HELCOM monitors progress in this regard, they are strictly non-binding instruments. The EC Commission would be well advised, however, to liaise with the HELCOM Secretariat concerning its experience in the field.

249. The 1992 Convention, which awaits Russian and Polish ratification before it can enter into force, does not expressly mention ship-source air pollution either, but it does bind Parties to prevent and eliminate pollution of the Baltic marine environment by ‘harmful substances (broadly defined) from all sources’ (parentheses and emphasis added) (Article 5) and to implement procedures and measures set out in its Annex I. These are apparently capable of extending to the control of SO2 and NOx emissions from ships. Again, no problems for an EC regime appear to arise from this.

250. One should also note that the 1974 Nordic Convention, concluded between Denmark, Finland, Norway and Sweden, has potential relevance to ship-source air
pollution, as does the 1974 Agreement concerning Protection of the Sound from Pollution, concluded between Denmark and Sweden.

A4: 3.3.2 The North Sea

251. No binding regional instrument concerning ship-source operational pollution exists for the North Sea or North-East Atlantic areas, but the matter is dealt with in the regular Inter-Ministerial Meetings of the North Sea States. The wording of paragraph 44.iii) of the fourth, and latest, North Sea Ministerial Declaration, made at Esbjerg, on 9 June 1995, is interesting. It states that ‘the Ministers WILL TAKE concerted action within the IMO to designate the North Sea as a Special Area to the greatest extent that meets IMO’s criteria under the future MARPOL 73/78 Annex on air pollution, regarding the discharge of sulphur from ships (emphasis added)’. This appears open to the interpretation that the political commitment made by the North Sea States has not ended with the designation of a North Sea SOxECA coterminous with the smaller Annex V, rather than the larger Annex I, MARPOL special area, but that their efforts should continue until the maximum area and maximum globally agreed standards can be secured for the area in question. The Commission has conceded for the moment that the case for extending the SOxECA to waters west of the UK and Ireland has not been proven, but will keep the matter under review: IMO doc. MEPC 44/11/4, paragraph 14.

252. One should also note that the 1982 Joint Declaration on the Protection of the Wadden Sea by (as well as the 1990 Agreement on the Conservation of Seals in the Wadden Sea concluded by) Denmark, Germany and the Netherlands has potential relevance to ship-source air pollution.

A4: 3.3.3 The Mediterranean Sea

253. As the Mediterranean regional sea regime is the least developed of the three in Europe, and as acidification is not a serious Mediterranean problem, except in northern Italy, it is unsurprising that there is nowhere in the instruments express provision on ship-source air pollution. The potentially most relevant instruments are the 1982 Protocol on Mediterranean Specially Protected Areas and the 1995 Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean. The former requires Parties to ‘endeavour to take the action necessary in order to protect’ such areas (Article 3) and to ‘progressively take the measures required’ (Article 7), which might include tackling ship-source air pollution; the areas in question are, however, limited to territorial waters. The latter, when in force, may also be applied to areas beyond territorial waters. The 1995 Protocol provides, in addition, for the establishment of Specially Protected Areas of Mediterranean Importance (SPAMIs). In these, very restrictive measures, including in relation to ship-source air pollution standards going beyond MARPOL Annex VI, may be applied, albeit only on an inter se basis between the Parties to the Protocol. It follows that France, Greece, Italy and Spain might come to be bound to observe any ship-source air pollution standard that might be adopted in such a SPAMI, but not other Member States. The prospect is, however, very unlikely. One should note, nevertheless, that the 1976 Agreement relating to the Protection of the Waters of the Mediterranean Coast, concluded between France, Italy and Monaco has potential relevance to ship-source air pollution.

A4: 3.4 The European Energy Charter Treaty

254. The European Energy Charter was signed by 51 States, including virtually all European and CIS States, Australia, Canada, Japan and the USA, as well as the EC. As of 1 March 1996, all of these except Canada and the USA had also
become Parties to the 1991 European Energy Charter Treaty. This treaty is concerned mainly with the sustainable development of the former Soviet bloc’s energy resources under new market conditions and with the assistance of the West. It does, however, contain provision that is potentially relevant to the control of emissions from oil tankers present in EC waters or ports. Article 19, on ‘Environmental Protection’, specifies, in paragraph (1), that ‘each Contracting Party shall strive to minimise in an economically efficient manner the harmful environmental impacts occurring within or outside its Area from all operations in the Energy Cycle [which includes the transport of oil in bulk] in its Area… In doing so each Contracting Party shall act in a cost effective manner [broadly defined as ‘to achieve a defined objective at the lowest cost or to achieve the greatest benefit at a given cost’].’ It then goes on to endorse the application of the polluter pays principle, albeit weakly (cf. Shine, 1996), in the ‘Areas of Contracting Parties’, which appear to include their territorial seas and EEZs, including in respect of transboundary pollution. It continues, that Contracting Parties shall accordingly ‘(d) have particular regard to… promoting the use of cleaner fuels’. It thus slightly strengthens, at least in relation to oil tankers flying the flags of and importing oil from other Parties to the Treaty, the legal basis of any attempt by EC Member States to control ship-source pollution in its waters or ports, through either regulation or economic instruments. Of course, oil tankers are often major air polluters, at least when they are not employing inert gas systems.

A4: 3.5 Synergies between Measures to Reduce Enhanced Global Warming and Measures to Reduce NOx Emissions:

the UNFCCC/Kyoto Protocol obligations of developed States, explained in relation to reduced NOx (and SO2) emissions

255. As the N₂O component of NOx is a precursor of tropospheric ozone, which is a greenhouse gas, and as reductions in the growth of CO₂ emissions from transport are likely to reduce both NOx and SO₂ emissions too (see Section A2/2.2 above and Section A6/2 below), the 1992 Framework Convention on Climate Change (FCCC) and its 1997 Kyoto Protocol are of potential relevance to a potential EC ship emissions regime. The potential effect of international developments in relation to green-house gas (GHG) emissions from ships on an EC ship emissions regime will thus be examined below.

256. At present there are 194 Parties to the FCCC, including all EC Member States and the EC itself. There are, however, only 18 Parties to the Kyoto Protocol, which is not yet in force. No EC Member States is a Party, although they all, and the EC itself, are among the 84 Signatories. The FCCC, being a framework convention, like the LRTAP Convention, contains no specific binding GHG emission reduction targets but only general obligations to endeavour to control and reduce emissions, especially for developed States, whose primary historical responsibility is recognised (Bodansky, 1993). Under Article 3 of the Kyoto Protocol, however, the developed States, and Central and Eastern European States with economies in transition, listed in Annex I to the FCCC, together with the EC, have accepted quantified emissions limitation and reduction commitments for GHGs (other than those already controlled under the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer). These so-called Annex I Parties are required, individually or jointly, to ‘ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the [GHGs] listed in Annex A [which lists CO₂ and nitrous oxides (N₂O) (though not NOx more broadly)] do not exceed their assigned amounts, calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B [which vary between States] and in
accordance with the provisions of this Article, with a view to reducing their overall emissions of such gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012": Article 3(1). Demonstrable progress must have been made by 2005: Article 3(2). The quantified emissions limitation and reduction commitment accepted by the EC, and by its Member States individually, is 8%.

257. The FCCC requires, however, that GHG emissions from international sea and air transport be reported separately, and these emissions are not included in countries’ national totals: IMO doc. MEPC 44/WP.6, paragraph 11.4.1. It follows that at present they are not included in the quantified emissions limitations or reduction commitments. Instead, until such time as the Subsidiary Body for Scientific and Technological Advice (SBSTA) fulfils its mandate to find ways to include these emissions in Parties’ overall GHG inventories (cf. MEPC 44/WP.6, paragraph 11.4.2), Annex I States will remain subject to a separate duty, under Article 2(2), to ‘pursue limitation or reduction of emissions of [GHGs]... from marine bunker fuels, working through the... International Maritime Organization’.

258. In view of this, the Commission submitted to the MEPC an information paper (IMO doc. MEPC 42/INF.22) introducing its Communication on Transport and CO\textsubscript{2}. This explains that its short to medium term policy approaches set out in the Communication could, if properly implemented, not only reduce the expected growth in CO\textsubscript{2} emissions from the transport sector but also have other environmental benefits ‘notably reductions in “conventional” emissions such as NOx’ (paragraph 4). ‘In the long term (post 2010), the large scale introduction of new technologies could more than halve current transport [one presumes GHG] emission levels’ (paragraph 5), with corresponding impacts on NOx emission levels.

259. While, moreover, current estimates of shipping’s contribution to GHG emissions are relatively low (in the order of 2-3% globally - see below), its relative contribution might grow (but see below). There thus appears to be a high chance that measures will be taken, including within the EC, to control GHG emissions from ships. The Commission ought, therefore, to attempt to take into account the indirect effect of any such measures on an EC ship emissions regime for SO2 and NOx.

260. A good deal of further study is necessary, however, before effective policies can be formulated. This is taking place in and through the EC, IMO and FCCC Secretariats.

261. Adopted shortly before the Kyoto Protocol, the IMO Marine Pollution Conference’s Resolution No. 8 on ‘CO\textsubscript{2} Emissions from Ships’, arising from a Dutch proposal, invited: (i) co-operation between the IMO and FCCC Secretariats; (ii) the IMO to undertake a study, in co-operation with the FCCC, ‘in order to establish the amount and relative percentage of CO\textsubscript{2} emissions from ships as part of the global inventory of CO\textsubscript{2} emissions’; and (iii) the MEPC ‘to consider what CO\textsubscript{2} reduction strategies may be feasible in light of the relationship between CO\textsubscript{2} and other atmospheric and marine pollutants, especially NOx since NOx emissions may exhibit an inverse relationship to CO\textsubscript{2} reduction’. This study got under way in May 1999, and an interim report presented to MEPC 44, in March 2000. When completed, the final report is expected to form the background for the development of an IMO policy paper on the reduction of GHG emissions from ships to be considered by the MEPC (and forwarded to the FCCC Secretariat: see UN doc. FCCC/SBSTA/1999/INF.4) and to provide a basis for IMO’s reporting on GHG
emissions from ships, pursuant to Article 2(2) Kyoto Protocol. The study is required to, *inter alia*: examine the interrelationships of pollutants generated by shipboard systems, specific pollutants to be considered including NOx as well as CO₂ and others; consider how NOx may contribute to the production of tropospheric ozone and the potential to reduce GHG emissions by reducing NOx emissions ‘recognising the interrelated effects of relevant pollutants’; and determine the feasibility of GHG reductions through market-based as well as technology approaches: MEPC 42/WP.11, Annex 2.

262. The first Conference of the Parties to the FCCC (COP 1) requested the SBSTA, which aims to calculate GHG emissions, and the Subsidiary Body for Implementation, to address the issue of the allocation and control of emissions from international bunker fuels, taking into account ongoing work in Governments, the IMO and the ICAO: COP Decision 4/CP.1. Subsequent COPs have confirmed this, most recently in Decision 18/CP.5, 4 November 1999.

263. The SBSTA first considered emissions relating to international bunkers at its fourth session, in December 1996. It then noted that there are three separate issues related to international bunker fuels: adequate and consistent inventories; allocation of emissions; and control options. At present, emissions are calculated on the basis of the quantities of bunker fuel *sold* in each country. Appropriate allocation of responsibility for emissions from international bunker fuels, it also noted, would necessarily be connected to inventory and control issues. It narrowed down the options for allocation of bunker fuels to five possibilities and encouraged Parties to report emissions from international aviation and marine bunker fuels as two separate entries in their national communications, in accordance with the Revised 1996 Guidelines for National [GHG] Inventories of the Intergovernmental Panel on Climate Change (IPCC): FCCC/SBSTA/1996/20, paragraph 55.

264. The SBSTA continues to examine the issue of ships’ bunkers, in co-operation with the IMO, focusing on methods to estimate ships’ emissions. Its preliminary analysis ‘suggests that the major barriers to reporting emissions from international bunker fuels consistently include: availability of data to make the required split between domestic and international [craft]; consistent use of definitions of domestic and international; and consistent use of methods to estimate the emissions’: FCCC/SBSTA/1999/INF.4, paragraph 30. See now also FCCC/SBSTA/1999/L.8, paragraph 6, and IMO docs. MEPC 43/10/2 and 44/WP.6, paragraph 11.4.1. This is equally true of EC as of other States. Ireland, for example, considers all emissions from fuel sold to ships as international, whereas Germany, France and others attempt to distinguish between sales to inland and those to seagoing transport operations. According to the Report on the [SBSTA] workshop on methodological issues related to greenhouse gas inventories, moreover, ‘(a) Separate aviation and marine bunkers should be reported as set out in the IPCC Guidelines in a fully transparent manner. The lack of good activity data and the need for more work on collection of accurate bunker data constrains the reporting of emissions from bunkers according to the guidelines; [and] (b) A key element in the methodological work is achieving a clear separation between domestic marine and aviation emissions (which are to be included in the national total), and international aviation and marine emissions (which are not to be so included and to be reported separately)’: FCCC/SBSTA/1999/INF.1, paragraph 26.

265. Current estimates of CO₂ emissions from shipping are based on limited information. The 1996 SBSTA global estimate of 441 Mtons for 1990, representing
about 2% of emissions from all sources, was based on IPCC data compiled in 1994, according to IMO doc. MEPC 39/INF.5, paragraph 25 and note 6, but this is contradicted by MEPC 42/22, paragraph 9.5.4. The SBSTA established a figure of 2.8% for the 22 States reporting relevant emissions: FCCC/SBSTA/1996/Add.2. The 1997 Carnegie Mellon University study yielded figures of 123.46 teragrams per year (123.46 million metric tonnes) and 2%, using Lloyd's shipping data and global bunker fuel sales data appearing in 1990, 1995 or 1996: see MEPC 42/9/2. The EC Communication on Transport and CO\textsubscript{2} suggests that shipping is responsible for approximately 3% of CO\textsubscript{2} emissions in the EU. Finally, the SBSTA has reported, in 1999, that international bunker fuel emissions increased for 22 out of 25 reporting Annex I Parties from 1990 to the last year reported by them, in 4 cases by more than 50% (FCCC/SBSTA/1999/INF.4, paragraph 27), albeit that this appears to include aviation bunkers (which are more significant and faster growing contributors to GHG emissions than marine bunkers).

266.Regard should also be had to statements, particularly by Germany (MEPC 41/20, paragraph 8.17) and the ICS (MEPC 42/9/4) that shipping has been responsible for improvements in recent years, so that it is already very efficient in terms of GHG emissions from transport, and that further improvement might be constrained by lack of available technology.

267.In addition, the USA and ICS have pointed out that ‘there is an inverse relationship between NOx generation and fuel consumption. For an average engine, a 25% NOx reduction results in a 5% increase in fuel consumption’ (ibid., paragraph 9). A number of the NOx reduction technologies described in Appendix 5 to this Study involve increased fuel consumption and so increased emissions of other GHGs, although the designers of certain methods claim that they result in increased engine efficiency. It follows that the synergies considered in this section are not entirely straightforward.

268.The Commission should, therefore, in preparing its policy on an EC ship emissions regime for SO\textsubscript{2} and NO\textsubscript{x}, have regard to the GHG studies and policy-formation process going on in the IMO and FCCC, and should endeavour to make any instruments flexible enough to take into account the synergies clarified by these. There will be some delay, arising from: (i) the need to put in place adequate systems to collect and report information in a consistent manner on emissions from international bunker fuels (and to resolve inadequacies in existing data); (ii) the desire to avoid a further change to the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories before the end of the first commitment period, in 2004; and (iii) the desirability of thoroughly examining control options, including internationally co-ordinated instruments, such as taxes and other market-based instruments. All this has made the EU suggest ‘that decisions within.. IMO on policies and measures should be taken at the.. [IMO] General Assembly [not immediately but] as soon as possible before 2005... in order to make clear how they intend to operationalise (sic) their responsibility for international bunker emissions, according to Art 2.2 of the Kyoto Protocol, taking into account the overall GHG emission reduction target of the Kyoto Protocol’: EU Comments on the Secretariat's Informal Paper "Methods Used To Collect Data And To Estimate And Report Emissions From International Bunker Fuels", Submissions received by the SBSTA on 24 August 1999.
A4: 3.6 International Trade Law Aspects

A4: 3.6.1 The General Agreements on Tariffs and Trade and on Trade in Services

269. The GATT is now administered, together with other multilateral agreements on trade in goods (such as the Agreement on Subsidies and Countervailing Measures), GATS and certain other trade agreements not relevant to this Study, by the World Trade Organization (WTO): 1994 Agreement establishing the World Trade Organization. This now has 135 Members. It aims to minimise government (and economic integration organisation) actions that inhibit or limit global trade, notably through the application of the most-favoured nation (MFN) and national treatment principles, including in respect of import and other taxes (or charges), to imported goods (GATT Articles I and III); it thus requires that a privilege (such as a lower tax rate in respect of imported goods) granted one Party should be granted to all Parties, and that imported goods be treated no less favourably than equivalent domestic goods.

270. These basic principles are subject to limited exceptions, which include certain measures taken for environmental protection purposes (notably GATT Article XX(b), referring to measures ‘necessary to protect human, animal or plant life or health’). This exception is now reproduced *mutatis mutandis* in Article XIV(b) GATS. While some GATT Panel (and, more recently, WTO Dispute Settlement Body Panel and WTO Appellate Body) decisions give some hope for a broad interpretation of this exception, the jurisprudence is as yet sparse. It is also addressed to the effect of national measures, although much environmental protection action is inter- or sub-national in origin, and is ill-suited to cope with issues involving great scientific and political controversy.

271. The exception’s precise utility remains, therefore, very uncertain: see, for example, the Marrakesh Decisions on ‘Trade and Environment’ and on ‘Trade in Services and the Environment’, 14 April 1994. The WTO Committee on Trade and Environment, set up under the former, has made very little progress towards the possible negotiation of a treaty or other instrument reconciling the conflicting community interests in free trade in goods and services with environmental protection. Despite strong support from, *inter alia*, the G8, the EC, Norway and Switzerland, for an integrated environmental dimension to the proposed Millennium Round of trade talks, the reluctance of developing countries to entertain this contributed to the debacle at Seattle in December 1999.

272. The potential relevance of GATT or GATS to an EC ship emissions regime lies mainly in the potential for environmentally-differentiated shipping dues to constitute a restraint on trade in goods or services.

273. It might be possible to characterise such dues as a form of tax or charge upon the goods being imported in the ships in question, on the ground that the ship owner or operator is likely to seek recovery of his payment from the shipper through an increased freight rate and the shipper is likely in turn to pass this on by increasing the price for the goods payable by the consumer, in this case in the country of import. If this were so the GATT would apply. There would appear to be no difficulty in satisfying the MFN principle of the GATT. On the other hand, the GATT national treatment principle might be argued to prohibit environmentally-differentiated shipping dues, unless the Article XX(b) exception justifies them. This is a matter that is very difficult to judge, but that the exception would not justify
them is suggested by the 1997 WTO Dispute Settlement Body ruling in *Venezuela v USA*, where the US Clean Air Act clean fuel provisions were held to be discriminatory against Venezuela (an importer into the USA of non-conforming gasoline) and not justified under Article XX(b). On the other hand, the WTO Appellate Body decision in *Shrimps-Turtle* appears to permit WTO Members to adopt unilateral environmental policies to the extent that the letter of Article XX GATT is respected. It also suggests that a ‘balancing’ test should be applied between, on the one hand, the revealed national preference to protect the environment and, on the other, trade liberalisation. To the extent that this new approach continues to prevail, therefore, the EC might be able to justify any discriminatory impact of environmentally-differentiated shipping dues. (It might also extend to the interpretation of Article XIV(b) GATS).

274. In addition, as has been mentioned (at paragraph A4/126 above), GATT Article V appears to establish freedom of transit for the goods and vessels of each State Party through the territory of other States Parties ‘via the routes most convenient for international transit, for [such] traffic in transit to or from the territory of other contracting parties’. It will be recalled that goods and vessels ‘shall be deemed to be in transit across the territory of a contracting party when the passage across such territory… is only a portion of a complete journey beginning and terminating beyond the frontier of the contracting party across whose territory the traffic passes’: Article V(1). Paragraph (4) of the Article provides: ‘All charges and regulations imposed by contracting parties on traffic in transit to or from the territories of other contracting parties shall be reasonable, having regard to the conditions of the traffic’. In so far as GATT will apply to vessels subjected to environmentally-differentiated dues in EU ports, this might be argued to place a ‘reasonableness’ requirement on the amounts levied. It is perhaps the case that the word ‘on’ is intended only to denote charges for services rendered, but this is not explicitly made clear, and in our view the requirement is a general one. It is also our opinion that the final phrase, ‘having regard to the conditions of the traffic’, is not intended to place any limitation *ratione materiae* on the sort of charge that might be levied. Finally, Article V(5) provides for MFN treatment of such goods, as follows: ‘With respect to all charges, regulations and formalities in connection with transit, each contracting party shall accord to traffic in transit to or from the territory of any other contracting party treatment no less favourable than the treatment accorded to traffic in transit to or from any third country’.

275. The better view, however, is that GATT itself only loosely applies to shipping and that an environmentally-differentiated shipping due is, if anything, a tax or charge on a service, rather than on products, and so in principle subject to GATS. At present, however, GATS’s application to maritime transport services is only marginal (Haralambides, 1997).

276. GATS, the first global treaty governing international trade in services, came into force on 1 January 1995, and all EC/EEA Member States as well as the EC itself are Parties. As with the GATT, EC, as well as Member States’, measures must thus comply with its provisions. It operates on three levels: the main text containing general principles and obligations, which make it clear *inter alia* that maritime transport services are services involving cross-border supplies; annexes dealing with rules for specific sectors, including one on Maritime Transport Services; and individual States' specific commitments to provide access to their markets. These commitments are binding in the sense that, if a State wishes to abandon or reduce its commitment, it may do so only after three years have elapsed since the commitment entered into force and after agreeing compensatory
adjustments with affected States. Unlike in the case of goods governed by GATT, however, GATS has a fourth special element: lists of exemptions, showing where countries are permitted temporarily (for up to 10 years) to disapply the MFN principle. Both the scheduled commitments and the exemptions are integral parts of the Agreement. In addition, certain kinds of services are excluded from the scope of GATS, for example those supplied in the exercise of governmental authority, defined as ‘any service which is supplied neither on a commercial basis, nor in competition with one or more service suppliers’: Article I(3)(b) and (c).

277. In the GATS context, MFN treatment means ‘With respect to any measure covered by this Agreement, each Member [according] immediately and unconditionally to services and service suppliers of any other Member treatment no less favourable than that it accords to like services and service suppliers of any other country’ (Article II). In addition, Article VI.1 provides: ‘In sectors where specific commitments are undertaken, each Member shall ensure that all [domestic] measures of general application affecting trade in services are administered in a reasonable, objective and impartial manner’.

278. During the Uruguay Round of trade talks, maritime transport services, being a very controversial area, were only brought within GATS to a limited degree. It was thus one of the four areas in which governments decided to continue GATS negotiations in order to try to improve on the agreed package: Marrakesh Decision on Negotiations on Maritime Transport Services, 15 April 1994. These particular negotiations were originally scheduled to end in June 1996, but participants failed to agree on a package of commitments, and talks were suspended until the new (‘Millennium’) Services Round: WTO Council for Trade in Services, Decision on Maritime Transport Services, 28 June 1996 (1996 Decision). This Decision also suspended the Article II GATS MFN obligation, except with respect to any specific commitment on maritime transport services inscribed in a WTO Member’s Schedule, until the end of those negotiations.

279. Pending the conclusion of those negotiations, only a small proportion of the 95 States making commitments (and the 70 making them in respect of transport services in general) have done so in the three main areas in this sector: ocean transport; auxiliary services; and access to and use of port facilities. Only 11 States have, for example, undertaken commitments relating to access for consumers to port services on non-discriminatory and reasonable terms, and none of these are EC/EEA States.

280. As far as MFN exemptions are concerned, 26 States have MFN exemption lists in relation to maritime transport services. According to paragraph 4 of the 1996 Decision, the GATS Annex on Article II exemptions, as well as Article II itself, is suspended for those three main areas, until the conclusion of the Seattle Round of services negotiations. Paragraph 4 of the Decision does not, however, as has been explained, apply to any specific commitment on maritime transport services which is inscribed in a Member’s schedule, so MFN exemption lists submitted by Members who have maintained specific commitments in the sector are not suspended. There are, therefore, 14 Members which have GATS MFN exemption lists actually in force. Among these are the EC and Finland, but their exemptions have little or no relevance to the present Study.

281. It follows that few, if any, obligations arise for EC/EEA Member States under GATS in respect of the design and operation of environmentally-differentiated port dues.
282. Paragraph 7 of the 1996 Decision is, however, of potential significance for such measures; it states, ‘Commencing immediately and continuing until the conclusion of the negotiations… it is understood that Members shall not apply any measures affecting trade in maritime transport services except in response to measures applied by other countries and with a view to maintaining or improving the freedom of provision of maritime transport services, nor in such a manner as would improve their negotiating position and leverage.’ In selecting and designing any proposal for a system of environmentally-differentiated shipping dues, therefore, the Commission should avoid any impacts on competition in maritime services.

283. GATS also identifies several issues for future negotiation, including the question of subsidies (as to the existing, general, provision on them in GATs, see below Section 3.6.2); this, especially if taken up in the Millennium Round, might come to affect an EC ships emissions regime in so far as the success of a system of differentiated shipping dues is reliant on the provision of investment (or even operational) subsidies, or the dues themselves constitute subsidies. If these negotiations can be characterised as relating to cross-frontier supplies of services where neither party moves, the matter will fall within the EC’s Common Commercial Policy, and so within exclusive Community competence: Opinion 1/94 (paragraphs 41-47); the Community institutions would thus be in a strong position to conduct such negotiations themselves. If, however, they are considered to relate to an international agreement in the field of transport, external competence will be mixed: ibid., paragraphs 48-53.

284. It follows from the above that neither GATT nor GATS is likely, in our opinion, to impose any obstacle to the operation of a reasonable, non-discriminatory system of environmentally-differentiated dues in EC ports. This might, however, change as a result of the Millennium Round of services negotiations and/or subsequent discussions within the WTO Council on Services.

**A4: 3.6.2 Subsidies**

285. The Swedish system of environmentally-differentiated fairway dues has involved the use of subsidies in order to assist compliance with higher NOx standards by off-setting part of ships’ capital costs (see paragraph A3/16). An EC system might involve the same (although there is obvious doubt that the EC would wish to extend subsidies to the large numbers of third flag vessels in which there is no European beneficial interest - 'non-EC vessels’ - calling at its ports). In addition, as will be explained below (at paragraph A4/373) economic instruments are capable of constituting subsidies in certain circumstances. It follows that GATT/WTO provisions on subsidies and countervailing duties are of potential relevance.

286. The 1994 Agreement on Subsidies and Countervailing Measures (Subsidies Agreement) contains detailed rules for deciding whether a product is being subsidised (not always an easy calculation), criteria for determining whether imports of subsidised products are causing injury to domestic industry, procedures for initiating and conducting investigations, and rules on the implementation and duration (normally five years) of countervailing measures. But these are not relevant here.

287. As far as services are concerned, the law is less well developed; Article XV GATS provides as follows: ‘1. Members recognize that, in certain circumstances, subsidies may have distortive effects on trade in services. Members shall enter into negotiations with a view to developing the necessary multilateral disciplines to
avoid such trade-distortive effects. The negotiations shall also address the appropriateness of countervailing procedures [and] 2. Any Member which considers that it is adversely affected by a subsidy of another Member may request consultations with that Member on such matters. Such requests shall be accorded sympathetic consideration’. If, therefore, the EC and/or its Member States were to accompany an environmentally-differentiated port dues system with subsidies designed to permit only ‘EC vessels’ to comply, in principle, third States might challenge its actions under GATS, and consultations would be required.

288. On the other hand, Article 8.2(c) of the Subsidies Agreement lists among ‘non-actionable subsidies’ ‘assistance to promote adaptation of existing facilities [defined as those which have been in operation for at least two years at the time when new environmental requirements are imposed] to new environmental requirements imposed by law and/or regulations which result in greater constraints and financial burden on firms’. Such subsidies cannot be challenged under the WTO dispute-settlement procedure, and countervailing duties cannot be imposed on subsidised imports. Strictly speaking, this provision only prevents measures being taken by third States against imported products benefiting from such subsidies, and it is not clear if ships can qualify as ‘facilities’. To the extent, however, that it can be interpreted as applying to existing EC ships, it might be invoked in aid of an EC subsidy scheme that has a distorting effect on trade in services, by benefiting EC ships trading to EC ports. On the other hand, any such subsidies have to meet strict conditions to qualify among the ‘non-actionable subsidies’. The assistance in question must:

(i) be a one-time non-recurring measure;
(ii) be limited to 20 per cent of the cost of adaptation;
(iii) not cover the cost of replacing and operating the assisted investment, which must be fully borne by firms;
(iv) be directly linked to and proportionate to a firm’s planned reduction of nuisances and pollution, and not cover any manufacturing cost savings which may be achieved; and
(v) be available to all firms which can adopt the new equipment and/or production processes.

289. We submit that the 20% cost limit might be too restrictive, in the light of the Swedish experience (see paragraph A3/16). Given that there is no equivalent of this provision in GATS, it might be better policy in any event for the EC Commission to argue that the matter is at present ungoverned by relevant international trade law, but only by EC law (on this, see below Sections 4.2.2.2 and 4.2.3.2, and especially paragraphs 396, 398 and 415).

A4: 3.7 Potential Clashes of Treaty/Institutional Approaches

290. The above discussion illustrates that the potential for clashes of treaty provisions as they relate to an EC ship emissions regime is minimal. The differences between the ‘technology-forcing’ (BATNEEC) provisions in the LRTAP Convention (and NOx and Second Sulphur Protocols) and the technological solutions decided on in the new MARPOL Annex are unlikely to have any real impact. There are also potential conflicts between certain WTO trade rules and what is permitted under EC law, especially in the field of border tax adjustments (see Commission Communication on Trade and Environment), but these are unlikely to affect a ship emissions regime.

291. As far as institutional clashes are concerned, the only real potential problem area is the relationship between the Community institutions and the IMO. The EC
Commission and UNECE Secretariat, for example, maintain very close links in co-ordinating their strategies to reduce acidification and other adverse effects of air pollution; the UNECE has, moreover, not deliberately trodden on IMO territory; and the EC Commission has a highly formalised and prominent participation in the Baltic, North Sea and Mediterranean regimes. Unfortunately, its profile at the IMO is very different. Member States’ desire to maintain their autonomy in that Organisation has been marked with a degree of antipathy towards EC ‘interference’. The culture of maximum adherence to global standards for shipping (discussed above in relation to port State control, in Section 2.2.6.5) is very marked in IMO circles, and is likely to lead to strong opposition to EC ‘unilateral’ regional standards on ship-source air pollution in certain Member State government departments.

**A4: 3.8 Policy Impacts**

292. Indeed, the importance of much of the above discussion is as much in revealing the likely attitudes of governments, and indeed other stakeholders, towards a proposal for an EC ship emissions regime as it is for its legal connotations. In this regard, we believe it to be clear that the main stakeholders to bear in mind, in addition to Member State governments, are the major oil companies.

293. We will briefly examine below what international negotiations reveal about the likely attitude of each main group of stakeholder:

**A4: 3.8.1 EC/EEA Member State Governments**

294. It is certain that the Baltic Sea Member States, especially Finland and Sweden, are committed to a reduction in the sulphur content of ships’ bunkers in all, or at least the most affected, European waters to 1.5% (or lower). The same appears to be true now of EC Member States and Norway in respect of the North Sea. Norway’s ratification of MARPOL Annex VI might also be taken as evidence of its particular adherence to this position, and the UK is clearly concerned about emissions from waters to its west as well as the North Sea. It is not clear, however, whether any EC Member State would support the application of this standard to Mediterranean or other European waters. Greece, given its global shipping interests and close ties to the ICS, is likely to feel most strongly tied to the general application of the principle of global uniformity of standards. It is impossible to gauge from the discussion above what would be the reaction of individual Member States to a standard stricter than 1.5%.

295. According to Ågren (1999), moreover, the Multi-Pollutants Protocol negotiations show that: (i) Austria, France Germany and the Netherlands are generally in favour of mandatory emission and fuel standards, at least for all new major source categories and - in the case of some source categories - also for existing sources; (ii) Italy, Portugal and Spain generally accept such standards for new sources, but not for existing ones; and (iii) the UK usually opposes any such mandatory standards (see above paragraph A4/240). Norway too, he suggests, is usually in opposition, but it is noteworthy that it stood out in the MARPOL Annex VI negotiations in favour of applying NOx standards to existing ships (see now paragraph A3/37 above); in this instance, therefore, it can be placed, for what it is worth, in the first group. In addition, the extent of UK concern (following a number of studies) might be taken to suggest a greater degree of support for mandatory fuel content measures (or at least for economic instruments) than would normally be the case.
296. The negotiations indicate relatively little about likely Member State reactions to any proposal for an environmentally-differentiated port dues system. Clearly Sweden would support EC measures, if only for competitiveness reasons, as would, for what it is worth, Norway. Finland might feel impelled to follow Mariehamn’s lead (cf. Paragraph A3/34). Germany has also shown interest in a national port dues scheme, and other EC/EEA Member States too have proved receptive to the use of environmental taxation, some of which, as Appendix 3 suggests, are actually or potentially applicable to shipping. It does not follow, however, that they would support the EC measure in contemplation.

297. Put simply, the international negotiations in the field suggest strong Northern support for, in particular, a fuel content measure (and possibly for an economic instrument approach instead or as well), but perhaps weaker Southern support. Since the matter is in any event best seen as either a Northern regional or, indeed, a localised problem of the southern North and Baltic Seas, this raises the question, linked to the principle of subsidiarity (discussed below in Section 4.1.4), whether measures should be taken at the Community or at the sub-Community level.

A4: 3.8.2 Oil companies

298. The role of the oil companies in opposing a higher fuel content standard in MARPOL Annex VI, in order to preserve their market in residual fuel oil, cannot be underestimated.

A4: 3.8.3 Ship owners and operators

299. The MARPOL Annex VI negotiations illustrated ship owners’ and operators’ preferences for uniform global standards and reluctance to accept regional variations, such as those applicable in SOxECAs. Non-discriminatory EC regulatory measures restricted to territorial waters and enforced in ports or non-discriminatory EC environmentally-differentiated port dues are likely to be more palatable to them than further SOxECAs.

A4: 3.8.4 Others

300. The universally negative reaction of environmental NGOs to MARPOL Annex VI (Ågren, 1997, note 2 and accompanying text) should assure the EC that they will support improved regional standards. On the other hand, the international negotiations indicate little about the likely attitudes of other stakeholders, such as marine engine manufacturers, port authorities, marine bunker fuel suppliers and major terrestrial emitters of SO2 and NOx in the EU. One presumes that the latter will welcome any shifting of the burden of further emissions reductions from them, that the main concern of port authorities and suppliers of bunkers would be to avoid any onerous policing or administrative role, for example as collectors for the government of revenues arising from shipping dues, and that engine manufacturers will not welcome the need to cater for two markets (ships destined for EC trade and ships not so destined); Japan, as the main country of manufacture, will no doubt share their concern.

A4: 4 The EC Environmental Competence and Policy Baseline

301. This Section will address the internal and external competence of the Community to act to control ship emissions in EU waters, the particular considerations surrounding the possible use of economic instruments and the appropriateness of action at Community level. Its references to EC Treaty provisions will be references to those provisions as amended by the Amsterdam
Treaty, with the former number of the article in question also appearing, where appropriate, in parentheses.

**A4: 4.1 Internal Competence**

**A4: 4.1.1 Sustainable Development and the Integrationist Principle**

302. Article 6 of the Amsterdam Treaty elevates to the level of an EU Treaty provision the broad (so-called ‘integrationist’) principle that ‘environmental protection requirements must be integrated into the definition and implementation of [all] the Community policies and activities... in particular with a view to promoting sustainable development’. This recognises, as did the Fifth Environmental Action Programme before it, that reconciliation of environment and development is one of the principal challenges at present facing the Community. The design of any proposal for an EC ship emissions measure should take this guiding principle into account.

303. The traditional dynamic of the progressively developing single market appeared largely to conceive the Community’s legislative role in terms of unifying the legislative environment in such a way as to prevent its use as a source of competitive advantage as between actors operating within it (the obverse of permitting ‘regulatory competition’: but see Weatherill, 1994, who suggests, at p. 64, that the ECJ at least is beginning to move away from the traditional view). The European Court of Justice (ECJ) has, however, long been obliged to accept that some limitations on competition may arise out of harmonisation, provided that the Community measure secures an objective, such as environmental protection, justified under the Treaty. This was the case in relation to the large body of legislation with environmental implications made, before the emergence of a specific Environment Title in the Treaty, under Articles 94, 95 and 308 (ex 100, 100a and 235). The extent to which restriction or distortion of competition by such means is permissible remains, however, even now uncertain. On the one hand, the ECJ has stated, in Continental Can, that such ‘restraints on competition.. are limited by the requirements of Articles 2 and 3’ of the Treaty. This suggests that securing environmental objectives is always subordinate to or limited by the objective of completing the single market and, as a result, that competition may not be too severely restricted. On the other, Walloon Waste best represents a strand of jurisprudence that suggests the triumph, in certain circumstances, of environmental over integration values; as the US example has shown, it is not essential to have uniform product or services standards to have a thriving common market.

304. The integrationist principle represents in large measure the Community’s response to these tensions. Environmental protection aims have thus become to a large extent conflated, not least in the Fifth Environmental Action Programme, with the principle of sustainable development, which is seen as central to success both in the environmental and the economic spheres. The Programme seeks to achieve sustainable development by encouraging a new interplay between a wide variety of actors, including private actors, and between certain targeted sectors, including the transport sector, that have particularly great impacts on the environment (Chalmers, 1995, pp. 71-72).

305. The increased emphasis on economic instruments, as opposed to traditional ‘command and control’ mechanisms, represents one, innovatory, pillar of this approach. Because such instruments attempt to (progressively) reflect environmental costs in the price mechanism, they might be regarded as
particularly apt ways to try to balance environment with development’ (see further below Sections 4.1.3.4 and 4.2). As Lee has pointed out, moreover (1994, 238):

Environmental problems have traditionally been viewed as unwanted side effects of economic activity which should be controlled by a range of regulatory measures. A less widely held view is that environmental problems stem from failures within economies and, therefore, market-based measures are needed to resolve them. Although the former approach has dominated EC and Member States’ environmental policies so far, the balance of view is changing.

On the other hand, whether or not a particular environmentally-differentiated system of port dues can be regarded as more consistent with the integrationist principle than particular regulatory controls of the sulphur content of marine bunkers (or of NOx emissions) depends on how successful it is in reflecting those environmental costs.

306. The Commission’s approach to the integrationist principle is perhaps best reflected in its Communication on the Single Market and Environment, paragraph 1 of which suggests that:

The Community must seek a coherent approach to the pursuit of the objectives of the Treaty in relation to both the Single Market and the environment whilst also honouring its international obligations. This Communication is intended to contribute towards that objective, which is to achieve greater integration of the two policy areas by clarifying the Commission’s approach to making the two policies mutually supportive and reinforcing, whilst at the same time developing positive synergies between them.

307. The degree to which the integrationist principle has been and is being fulfilled was reviewed at the Helsinki European Council in December 1999. Paragraphs 46-50 of its Conclusions called for a broad Community strategy towards its strengthening, through various measures, including the preparation of a Sixth Environmental Action Programme during 2000. It is also loosely related to the choice of legal base for a possible Community measure on ships emissions.

A4: 4.1.2 The Alternative Legal Bases for Community Ship Emission Measures

308. If a purely regulatory approach were taken at EC level to the control of ship emissions, there would be a choice, broadly speaking, between two main legal bases, Article 95 (ex 100a) and Article 175 (ex 130s) of the Treaty. Both employ the co-decision procedure, but, of the two, Article 175 is to be preferred. Both alternatives being specific legal bases, the possibility of using a more general base, such as Article 308 (ex 235), is precluded: Commission v. Council (1987); Opinion 2/94. It might be thought desirable to have recourse instead, or in addition, to Article 80(2) (ex 84(2)), which appears in Transport Title of the Treaty. After all, a number of pieces of legislation on shipping safety and environmental protection, arising from Transport Directorate-General proposals, have been based on this Article, including the SBT Regulation, discussed in Appendix 3.2. It provides, ‘The Council may, acting by a qualified majority, decide whether, to what extent and by what procedure appropriate provisions may be laid down for sea and air transport’ and then refers to the procedural provisions of Article 71 (ex 75). This is broadly worded to permit any ‘appropriate provisions’ (cf. Article 71(1)(d)) to be made, taking into account the distinctive features of transport, in order, in the words of Article 70 (ex 74) to fulfil the objectives of the Treaty within the framework of a common transport policy. It also refers to the co-decision procedure. In our opinion, however, the key words in Article 70 are ‘in matters governed by this Title’,
viz. transport matters. While it is true that the Environment Directorate-General is examining the possibility of further regulating ships, a means of transport, it is doing so essentially with a view to reducing terrestrial rather than marine pollution. It thus appears to us to be more appropriate, if a single legal base is chosen, to choose one that reflects the matter's environmental rather than its transport features. There is nothing, on the other hand, to prevent Article 80(2) being relied on in addition. As to the consequences for external competence, see paragraph A4/421 below.

309. If, on the other hand, emphasis were to be placed by the EC on economic instruments, the choice (leaving aside Article 80(2)) would be slightly different: between Article 94 and Article 175. The procedure for adoption of the legislation would be stricter (unanimity in the Council, employing the 'consultation procedure', rather than co-decision). In addition, the legal base would arguably also need to incorporate Article 93 (ex 99), to the extent that the instrument in question were to create an indirect tax. This Article also requires unanimity for the adoption of 'provisions for the harmonisation of legislation concerning turnover taxes, excise duties and other forms of indirect taxation to the extent that such harmonisation is necessary to ensure the establishment and the functioning of the internal market'. That the instrument would not create an indirect tax seems to be suggested by Ziegler (cf. Paragraph A4/380 below). On the other hand, the ill-fated Commission Proposal for a Council Directive establishing a common CO2/Energy Tax, the most ambitious proposal for a Community (green) tax to date, was based on both Article 99 (now 93) and 130s (now 175). See further below, at paragraph A4/390).

310. The reasoning behind the above conclusions is set out below:

311. First, EC ship emissions legislation could be conceived in terms of a harmonisation of national laws aimed at helping complete the single market, on the basis that differing environmental standards affect the costs of production and services, and so competition between Member States. This is certainly a possibility, especially given the commercial nature of the industry to be regulated. In this case, the appropriate legal basis would appear to fall under the 'approximation of laws' title of the Treaty, i.e. Article 95 or 94, as appropriate: the ECJ pointed out, in *Titanium Dioxide*, that the pursuit of environmental ends is not restricted to the Environment Title of the Treaty, given the requirement in Article 95(3) (ex 100a(3)) that the Commission take as its base, in effecting harmonisation legislation, 'a high level of environmental protection', and that the then Article 130r (now Article 6) dictated that environmental policy should be integrated into the Community's other policies.

312. Alternatively, such legislation could be seen as a measure to protect the environment, in which case action under the Environment Title of the Treaty, and in particular Article 175, seems appropriate.

313. *Titanium Dioxide* established that the choice between these bases must be made on the basis of objective factors amenable to judicial review, although that very case illustrates well the complexity of the choice (see further below).

314. A choice is necessary. The Amsterdam Treaty has effectively removed the differences between the procedures for the adoption of measures under Articles 95 and 175, in effect removing the Commission's incentive to choose the former over the latter. The co-decision, rather than the consultation, procedure, now applies, although both articles list exceptions (including 'fiscal provisions', in Article
95(2), and ‘provisions primarily of a fiscal nature’, in Article 175(2), discussed further below - at paragraph A4/320 -, which remain subject to a unanimity requirement). Nevertheless important differences remain. In particular, Article 176 (ex 130t) established the principle of minimum harmonisation of national laws for measures taken under the Environment Title, while Article 95 is less permissive in permitting Member States to maintain higher national standards (see further below Section 4.1.5, as well as paragraphs A4/317, 320 and 326). This principle recognises that ‘the enticingly clean-cut notion that a Community rule pre-empts a national rule and provides for EU-wide uniformity within its sphere of application has not proved suitable’ in the environmental sphere; instead it ‘marks a pattern of shared competence, engaging both member states and the Community in the shaping of the market and its supporting system of regulation’ (Weatherill and Beaumont, 1999, p. 1053; as to the consequences of this see further below, Sections 4.1.4 and 4.1.5). In addition, the choice of legal bases might have some impact on the application to a proposed ship emissions regime of the subsidiarity principle (see below, paragraph A4/360).

315. The legal base of a measure is determined by its aim and content: Commission v. Council (1987). In Titanium Dioxide, the ECJ preferred to characterise a Directive setting common standards for tackling pollution caused by waste arising from the production of titanium dioxide as a harmonisation rather than an environmental protection measure, but it later took the opportunity, in Commission v. Council (1993), to make it clear that room existed for an autonomous environmental policy: it explained that where a measure possesses environmental protection as its predominant purpose it is properly based on Article 175, notwithstanding that it exerts an incidental effect on the functioning of the market. Determinative are the principles upon which the measure is based, not its subject-matter. This is a difficult test to apply, however, as regulatory intervention in the market commonly exerts several different impacts with several different aims: Weatherill and Beaumont, 1999, p. 1055; Chalmers, 1998, p. 213.

316. Excessive harmonisation of laws represents real dilemmas for Community environmental policy. First, harmonisation that aims to restrict competition as little as possible might not be the best way to achieve environmental protection, given the differences in environmental sensitivity, and existing levels of environmental degradation, in different areas of the EU. This is certainly true in the acidification context generally and more specifically in relation to the impact of ships’ emissions on different areas of Europe. Second, there is the danger of a ‘levelling down’ of environmental standards, as harmonised standards must take account of the different levels of development within the EU; harmonisation might result in some Member States lowering their pre-existing high standards. In the context of this Study, care must be taken not to undermine, through Community action, the bases of the apparent success of the Swedish system of environmentally-differentiated dues (see Appendix 3). Third, it might be argued that, in the medium- to long-term, economic integration provides economic incentives for capital-rich Member States to lower their environmental standards (as capital outflows increase the utility of the existing capital, and incentives to increase emissions develop), a matter made easier for their governments if it can be said to be done in order to conform with EC norms. Fourth, uniform standards might impose excessive strains on the weaker Member State economies (Chalmers, 1995, pp. 69-70).

317. If one adds to this the consideration, implicit in the above, that existing scientific evidence points to ship emission impacts in Europe that are geographically limited, the Commission would, in our opinion, be wise to suggest as the appropriate main
legal base of an EC ship emissions measure the more flexible Article 175 (in preference to Article 95, or 94 as appropriate). This would more easily permit Member States to maintain or adopt higher national standards, in appropriate cases, and be more consistent with the Community’s permitting or requiring different measures to be taken in different parts of the EU in order to achieve the minimum levels of protection it has in mind for the whole Community. It could also, in our opinion, be justified on the ground that the Commission’s predominant aim is clearly to protect the environment.

The Fuel Content Directive Precedent

318. The only existing EC measure that deals directly with marine bunker fuels was, indeed, made under Article 175’s predecessor, Article 130s. This is Directive 1999/32/EC, relating to a Reduction of the Sulphur Content of Certain Liquid Fuels and Amending Directive 93/12/EEC. Under its terms, heavy fuel oils must, as a condition of use within Member States’ territories (which must be understood as including territorial waters), contain less than 1.0% sulphur by mass by January 2003, unless local conditions permit a higher content: Article 1 and 3. Gas oils must contain less than 0.2% sulphur by mass by July 2000, and less than 0.1% by 1 January 2008: Articles 1 and 4. These duties appear to apply to fuel used by non-seagoing ships within the EU. Heavy fuel oils used by seagoing ships are, however, excluded from the Directive’s terms, as are marine gas oils being ‘used by ships crossing a frontier between a third country and a Member State’: Article 1.2. Otherwise, marine gas oils used by seagoing ships within territorial waters are included. The meaning of ‘ships crossing a frontier between a third country and a Member State’ is not entirely clear. The choice of ‘frontier’ appears to be infelicitous in a marine context, but the intention appears to have been to exempt vessels entering a Member State’s territorial waters en route from a non-Member State’s ports from having ipso facto to immediately switch to the use of low-sulphur gas oil. Once such a vessel has called at its first EC port, however, and for as long as it operates within the territorial waters of one or more Member State without calling at a port of a third State, she is, it seems, obliged, if she uses marine gas oil, to use only the low-sulphur variety. This interpretation appears to be reasonable, since, upon calling at the first EC port of call, she appears to be no longer ‘crossing a frontier’ and has the opportunity to take on low-sulphur bunkers. On the other hand, it might be argued that she is entitled to use up the high-sulphur gas oil in her tanks first, as ‘crossing a frontier’ is not necessarily temporally limited in this way and as she has no obligation to use marine gas oil as opposed to (high-sulphur) heavy fuel oil. The marine gas oil sulphur content limitations are in any event subject to exemptions, to take into account technical and economic problems, for Greece, the Canary Islands, and the Madeira and Azores archipelagos. The Directive’s impact on ship-source air pollution is thus likely to be limited at present to most, but not all, instances where seagoing ships choose to switch to marine gas oil for manoeuvring in the approaches to and from EC ports. In future it might also come to affect ships which choose to operate on marine gas oil at all times, because they are frequently subject to, and in order to comply with, MARPOL SOxECA restrictions: cf. the Swedish ships referred to in paragraph A3.29 above.

The Commission had originally wished to include marine bunker fuels among the heavy fuel oils the sulphur content of which, according to the Directive, should not exceed 1% by mass by January 2003, but later dropped this idea, despite strong Parliamentary support for a 1.5% limit by January 2000. This probably arose out of Member States’ unwillingness to take regional action unilaterally in such a global

319. A feature of this Directive is its flexibility. It provides for a number of derogations designed to ensure that critical loads rather than across-the-board reduction considerations prevail and, consistent with the choice of legal base, expressly states that it ‘limits itself to the minimum requirements necessary to achieve the desired objective (emphasis added)’ (preambular paragraph (11)). Significantly, this has not prevented the European oil industry’s transport association, EUROPIA, from arguing that the Directive is unnecessary and unjustified, as it applies ‘uniform measures rather than setting environmental targets in response to the varying environmental requirements across the EU’: EUROPIA 1997, p. 21. This might give some indication of the industry’s likely attitude to certain forms of EC ship emissions measure.

320. The unanimity requirement for the adoption by the Council of ‘fiscal provisions’ under both the harmonisation and the environmental titles of the Treaty and of indirect taxes under Article 93, reflects the sensitivity of Community intervention in fiscal matters, discussed in further detail below (at paragraphs A4/352 and 382). Herein lies another difference between Articles 95 and 175, which makes the use of the latter preferable. Whereas Article 175(2) merely creates an exception from the Article 175(1) voting procedure for ‘provisions primarily of a fiscal nature’, Article 95(2) actually disapplies Article 95(1) from ‘fiscal provisions’. As Article 95(1) applies in derogation of Article 94, the result is that a ‘harmonising’ economic instrument must be adopted under Article 94, to which the unanimity rule applies. No substantive significance for this Study appears to arise from the facts that Article 94 refers to measures falling within the ‘common market’ rather than the ‘internal market’ (to which Article 95(1) refers), and that it precludes the adoption of a regulation, rather than a directive (given the degree of flexibility an EC ships emission measure is likely to require, the subsidiarity principle and the modern preference for directives, the use of a regulation is highly unlikely: see below paragraphs A4/341-45). On the other hand, Article 94 is devoid of the provisions, appearing in Article 95, that permit the maintenance and introduction, in appropriate circumstances, of higher national standards, and their management by the Commission. It might be concluded that Article 94 pre-empts such national standards. If this is so, and if the Commission wishes to propose the use of economic instruments to control ship emissions, it is a strong reason for preferring Article 175 as the legal base (or, as appropriate, one of several bases).

321. The Commission will need to be aware that placing greater emphasis on economic instruments than regulatory control of ships emissions would import this procedural disadvantage into the process. The hands both of States seeking to avoid an EC measure’s placing heavy burdens on them and of States, like Sweden, seeking to avoid any diminution of their existing high standards would be greatly strengthened. It might, but need not necessarily, follow from such a choice that the negotiations in the Council would result in a weaker measure. The only saving grace of the stricter procedure would be the elimination of the prospect of members of an out-voted minority subsequently launching a legal challenge against a ships emissions measure, on the ground that it was adopted under the wrong Treaty Article. As to its relationship with the principle of subsidiarity, see below paragraph A4/347.
322. The above-mentioned tension between States seeking to impose or preserve high environmental protection standards and those seeking to avoid excessive burdens is also relevant to the principles contained in Article 174, discussed below.

**A4: 4.1.3 The Article 174 Principles**

323. Article 174 of the Treaty sets out a number of EC environmental objectives, the Community’s aim to achieve a ‘high level of environmental protection’, certain factors to be taken into account in the formulation of EC environmental policy and three ‘environmental’ principles, relevant aspects of which are discussed below. It is important to note ab initio that the Article ‘is confined to defining the general objectives of the Community in the matter of the environment’: *Peralta*, paragraph 57. It thus sets out the objectives the Community should seek to attain, but is not a binding, superior norm, violation of which renders a Member State act invalid: *ibid*.

**A4: 4.1.3.1 A High Level of Environmental Protection**

324. Article 174 (ex 130r) requires that Community policy on the environment, whether pursued under Article 95 or 175 (and/or indeed another provision), ‘shall aim at a high level of environmental protection’. It is apparent from the wording that this duty applies to all those who form Community environmental policy, and at least to the Community Institutions. Indeed, this appears to be confirmed by the insertion, through the Amsterdam Treaty, into the parallel provision in Article 95(3), of the phrase, ‘Within their respective powers, the European Parliament and the Council [as well as the Commission] will seek to achieve this objective’.

325. This duty does not, however, mean that the highest technically possible level of protection must be achieved (*Safety Hi-Tech v. S and T*); a balance must be found between environmental and other interests. Article 174(3), for example, requires the Community, in preparing its environmental policy, to take account of: ‘available scientific and technical data’; ‘environmental conditions in the various regions of the Community’; ‘the potential benefits and costs of action or lack of action’; and ‘the economic and social development of the Community as a whole and the balanced development of its regions’. Article 95(3) similarly requires the Commission (and, where relevant, the Parliament and Council) to take ‘account in particular of any new development based on scientific facts’.

326. More importantly, the duty is qualified by the words, ‘taking into account the diversity of situations in the various regions of the Community’. Member States in parts of the EU might be reluctant to incur substantial economic burdens without clear associated benefits. While, moreover, *Germany v. Parliament and Council* appears to proscribe Sweden from invoking Article 174 (or 95(3)) to suggest that it is a matter of overriding importance to avoid any reduction in the high level of protection provided by its shipping dues system, it also makes it clear that fixing the environmental quality in a harmonisation measure (made under Article 95) must not be treated as merely instrumental in the cause of trade liberalisation. Compromises will have to be struck (*Weatherill and Beaumont*, p. 1038). Sweden’s existing measures will also, of course, be afforded (different degrees of) protection by the Article 95 or 175 clauses permitting the preservation of higher national standards, discussed below.

**A4: 4.1.3.2 The Principles of Prevention and Precaution**

327. According to the prevention principle, protective measures should be taken before the environmental damage in question has actually occurred. The link between cause and effect is, however, often subject to a degree of uncertainty, given the
multitude of pressures on ecosystems and the limitations of scientific knowledge. The principle of precaution may therefore be invoked to justify action to prevent damage in certain cases even where a causal link cannot be clearly established on the basis of available scientific evidence. Precisely when this is justified is not always easy to determine, but the Commission can, in our opinion, convincingly argue that there is sufficient data on ships’ emissions to justify its taking measures on the basis of the precautionary, if not the preventive, principle.

A4: 4.1.3.3  The Principle that Environmental Damage Should as a Priority be Rectified at Source

328. This principle would appear to pose no difficulties for an EC ships emissions measure. Whether a regulatory or an economic instruments approach is taken, the aim is to reduce SO2 or NOx emissions from ships’ funnels.

A4: 4.1.3.4  The “Polluter Pays” Principle

329. According to this principle, as currently conceived by the Commission, the polluter, and not society as a whole, nor a section of it, should bear the full cost of environmental pollution. This is a broader formulation than the OECD’s (OECD, 1975), which was restricted to allocating the ‘costs of pollution prevention and control measures’. If it were fully applied, prices would reflect the full cost of production and consumption, including the environmental cost.

330. By aiming to ensure an ‘economically neutral’ regime, the principle is closely linked, as a principle of EC law, with the non-discrimination principle. ‘Derogation [from it] would therefore only appear legitimate on grounds related not to the cost of compliance [with EC legislation embodying it] but as to the distribution of that cost’: Chalmers, 1995, p. 78.

331. As noted in paragraph A4/305 above, moreover, ‘Environmental taxes and charges can be an appropriate way of implementing the “polluter pays” principle, by including the environmental costs in the price of goods or services and by this means internalising external costs’: Commission Communication on the Single Market and Environment, paragraph 19; see also the Fifth Environmental Action Programme, Chapter 7.4. This might be taken to confirm the proposition that the Commission must, in order to comply with the principle, prefer to the extent possible the economic instruments to the regulatory approach to a ship emissions measure. The weakness of the “polluter pays” principle as a principle of EC law, however, as well as the difficulty of accurately translating environmental costs into the price mechanism (see House of Lords, Carbon/Energy Tax Report, paragraph 97), precludes such a conclusion.

332. In reality, the “polluter pays” principle is better seen as an economic rather than a legal principle (Birnie and Boyle, p. 109), and as one of uncertain justiciability and application under EC law. Since its inception in EC law, in Recommendation 75/436, it has always been subject to limitations and exceptions that have greatly softened its rigour, even in its earliest, weak, formulation. ‘As the weight of regulation protecting the environment has increased [it] has come under greater pressure’: Chalmers, 1995, p. 79. It has come to be narrowed during the 1990s through a greater use of subsidies and a move towards greater use of a wider range of instruments and mechanisms, including economic instruments, that have not always reflected it: ibid., 79-86.

333. As will be seen in Section 4.2.2.2 below, the Cohesion Fund permits generous economic assistance to be given to development projects (including maritime...
transport projects) in the four Cohesion States, so as to offset certain costs of compliance with high environmental protection standards. As far as State aids are concerned the present governing rules (described in Section 4.3.2.2) might be criticised as incoherent and formalistic in their effect and in their relationship with the principle. The movement towards increased use of market-based instruments has, moreover, according to Chalmers (1995, p. 85) been characterised by increased reliance on ‘the use of a mixed bag of burdens and benefits being conferred on undertakings as a means of protecting the environment’, which is inconsistent with the draconian “polluter pays” principle.

334. It is thus best to see the “polluter pays” principle as a ‘soft’ one, intended to guide the environmental policy of the Community Institutions, but not sufficiently precise to be justiciable and applied as a broader principle or norm of EC law. This is unlikely to change significantly, unless perhaps the promised White Paper on Liability for Environmental Damage leads to substantial change. As long, therefore, as the Commission considers the principle in good faith, when designing a proposal for a ships emissions regime, it will be difficult to launch a legal challenge on the basis of it alone, even if the proposal emphasises the use of economic instruments and, as is likely, fails to reflect entirely accurately the relevant external costs in the levels of taxes or charges to be levied. This is not to say that there might not be an effective political challenge if the proposed measures appear to threaten economic dislocation in some or all of the EU.

A4: 4.1.4 The Principles of Subsidiarity and Proportionality

335. In addition to the integrationist principle, discussed in section 4.1.1 above, a second broad principle governs EC environmental policy, the ‘subsidiarity’ principle. This principle is tied up with the Community’s need to develop methods of assimilating national and regional diversity, including with respect to environmental attitudes and policies, within broader, integrated structures. It is expressed, in the second paragraph of Article 5 (ex 3b) of the Treaty, as follows:

In areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and insofar as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community.

336. The third paragraph goes on to express the principle of proportionality developed by the ECJ, as follows:

Any action by the Community shall not go beyond what is necessary to achieve the objectives of this Treaty.

337. These Treaty formulations are far from precise, and a Protocol to the Amsterdam Treaty, on the application of the principles of subsidiarity and proportionality, attempts to define more clearly the criteria for their application. The hope is to enhance the consistency of their application by all the Community Institutions: Article 1 of the Protocol makes it clear that each Institution, within the scope of its powers (and not merely the Commission), is responsible for ensuring that they are complied with.

338. Subsidiarity relates to whether or not the Community should act. Article 5 of the Protocol states that, for Community action to be justified, both aspects of the subsidiarity principle need to be met (that the objectives of the proposed action
cannot be sufficiently achieved by Member States' action in the framework of their national constitutional systems, and that these can therefore be better achieved by action on the part of the Community). It also offers the Institutions a helpful set of guidelines on whether action at the Community level is to be preferred over action at the national, or even sub-national, level. This is likely to be so where:

- the issue under consideration has transnational aspects which cannot be satisfactorily regulated by action by Member States;
- actions by Member States alone or lack of Community action would conflict with the requirements of the Treaty (such as the need to correct distortion of competition or avoid disguised restrictions on trade or strengthen economic and social cohesion) or would otherwise significantly damage Member States' interests;
- action at Community level would produce clear benefits by reason of its scale or effects compared with action at the level of the Member States.

339. The Commission will, no doubt, be able to furnish strong arguments that Community action is justified in accordance with these criteria. Especially after this Study, it will also be able to produce qualitative and, better still, quantitative indicators (as required by Article 4 of the Protocol) tending to substantiate its conclusion that the reduction of ship emissions in EU waters can be better achieved by action on the part of the Community. If nothing else, it might argue that 'Environmental protection is par excellence one area where action often needs to be international to be effective. The need to... [for example] eliminate pollution havens... and contribute to the solution of regional and global environmental problems all argue for some form of Community involvement. The question then becomes: to what level of detail should EC intervention extend?': Wilkinson, 1992, pp. 225-26.

340. On the other hand, persuasive counter-arguments and indicators might also emerge. The fact is the Commission must engage in a complex balancing of considerations, in relation to which the Protocol's usefulness is inherently limited by features of the subsidiarity principle that the Protocol itself recognises (in Article 3), its flexibility and dynamism; these render any attempt to reduce it to a too-rigid set of criteria otiose. This is discussed further below, in the context of possible political and legal challenges relying on the principle.

341. The subsidiarity principle, and thus the Protocol, also deals with the form Community action should take:

The form of Community action shall be as simple as possible, consistent with satisfactory achievement of the objective of the measure and the need for effective enforcement. The Community shall legislate only to the extent necessary. Other things being equal, directives should be preferred to regulations and framework directives to detailed measures (Article 6 of the Protocol).

342. Assuming Community action to be necessary at all, therefore, a Directive, which will leave the choice of form and methods of implementing the objective of reducing ships' emissions to the Member States, will be more consistent with the principle than a Regulation.

343. Furthermore:

Regarding the nature and the extent of Community action, Community measures should leave as much scope for national decision as possible, consistent with securing the aim of the measure and observing the requirements of the Treaty. While respecting
Community law, care should be taken to respect well established national arrangements and the organisation and working of Member States’ legal systems. Where appropriate and subject to the need for proper enforcement, Community measures should provide Member States with alternative ways to achieve the objectives of the measures (Protocol Article 7).

344. The Commission’s response to this is well-expressed in paragraph 8 of its Communication on Single Market and Environment: the ‘Community’s approach to environmental policy has shifted from detailed regulations to the setting of objectives at Community level by framework Directives, leaving Member States flexibility, in transposing these measures into national law, to choose the most cost-effective combination of instruments to reach the objectives.

345. On this point the two principles operate in tandem. The proportionality principle also militates against legislation that would unnecessarily replace diversity with uniformity. It too is consistent with the principle of ‘minimum harmonisation’, identified above (at paragraphs A4/314 and 317) as a feature of the Environment Title of the Treaty, and discussed further below (in Section 4.1.5) in the context of the Commission’s conception of a ‘principle of shared responsibility’. It differs from subsidiarity in that it goes to the content of a measure (whether or not it places unnecessary burdens on Member States or individuals) rather than to whether the Community should act or to the form of an EC measure. It also applies to all areas of EC law, and not simply those of mixed competence (see further below, paragraph A4/360).

346. The successful operation of the Swedish system of differentiated port dues (described in Appendix 3) is relevant in this regard. The Commission should not lightly seek to displace it with a proposal for harmonised standards. On the other hand, if it considered such standards to be necessary to attain its objective of reduced adverse impacts of ships emissions in Europe, the principles appear to leave it a sufficient margin of discretion to do so: Germany v. Parliament and Council (1997). To reach this conclusion, however, it will need to balance all the considerations in a complex equation.

347. Paragraph 8 of the Commission’s Communication on Environmental Taxes and Charges in the Internal Market suggests that, in view of the unanimity requirement for the adoption of fiscal measures, the Commission is only likely to put forward new proposals for environmental taxes or charges at EC level where ‘a multiplication of different national solutions to similar problems becomes evident, or when environmental objectives can be reached in a more cost-effective way’. ‘[I]n line with the principle of subsidiarity’, moreover, it accepts that ‘an increasing number of national initiatives in the form of taxes and charges are being taken to deal with local environmental problems, which often also are more efficiently dealt with at that level’. On the other hand at least one leading EC environmental lawyer has suggested that the Communication should be amended following Bic Benelux SA v Belgium, decided a week after the Communication’s release, and ‘that, despite the principle of subsidiarity, major future eco-taxation initiatives will have to be developed more at EC than national level’: McRory, 1997, p. 48. Be this as it may, the Commission should remember that the principle of subsidiarity has been invoked in the sphere of eco-taxation and that one of its criteria for intervention, a multiplication of different national solutions, does not apply (at present) to ships’ emissions; whether or not, on the other hand, EC action would be more cost-effective than national measures, this Study aims to help determine.
348. As to the possibility of the Commission proposing only a minimum level of harmonisation, while leaving the Swedish system intact as a higher national standard, see below (Section 4.1.5).

349. The balancing process inherent in the application of the principle of subsidiarity should establish the ‘best level’ for action, without preconception in favour of either re-nationalisation or further centralisation of power: Brittan, 1992, p. 574. And the result will not necessarily be ‘all or nothing’. Even if the Commission were to conclude, moreover, at the end of the day that action would be better taken at the national (or sub-national) level, such national action would not be immunised from the influence of Community norms. Article 8 of the Protocol provides:

Where the application of the principle of subsidiarity leads to no action being taken by the Community, Member States are required in their action to comply with the general rules laid down in Article 5 (now 10) of the Treaty, by taking all appropriate measures to ensure fulfilment of their obligations under the Treaty and by abstaining from any measure which could jeopardise the attainment of the objectives of the Treaty.

350. Finally, the Protocol sets out a number of procedural control mechanisms. Among other things, it requires the Commission: to state ‘the reasons on which [proposed Community legislation] is based… with a view to justifying its compliance with the [two] principles’: Article 4. This falls short of a requirement that the two principles be expressly mentioned, but subsidiarity and proportionality reasoning must be present. The Commission should also consult widely in advance (and, wherever appropriate, publish consultation documents too) and produce an annual report on its application of the principles: Article 9. The Protocol also requires the Council and Parliament to apply them when exercising their own legislative functions (Article 10 to 12).

351. In this way, the subsidiarity principle is embedded into the Community’s political structure. It has clearly had important political impacts. More particularly, it is clear that the Commission will, in accordance with its procedures, and indeed almost as a matter of course, have regard to the principle, and fulfil the procedural requirements of the Protocol, when considering and preparing a proposal for EC legislation on ship emissions. It is to be hoped that the other Institutions will be as serious in its application: see the statement of the Vienna European Council of December 1998, at paragraph 79.

A4: 4.1.4.1 A Political Challenge?

352. In the political sphere, the subsidiarity principle has not led to a major repatriation of environmental legislation. Instead, it ‘is leading to a form of condominium being established in the environmental field with tasks being increasingly organised along functional rather than territorial lines’: Chalmers, 1999, pp. 678-79. ‘Following the Edinburgh European Council [where the approach to subsidiarity now reflected in the Protocol was first formulated] one relatively unimportant proposal [for a Zoo Directive, since revived and adopted] was withdrawn, and there was agreement that EC air and water legislation should be recast and simplified. This process has led, paradoxically, in the case of air quality to more pollutants being regulated by centrally imposed EC standards than was previously the case (emphasis added)’: ibid., p. 678. ‘The same is true of the greater part of the aquatic environment, taken as a whole’: ibid., pp. 678-79. The ‘development of subsidiarity’ during the 1990s, Chalmers concludes, ‘was above all a drive to prevent EC institutions from acquiring increased symbolic capital (emphasis added)’ through a growth, not in legislative output, but in the functions of government. ‘Increasingly, national
administrations are therefore ringfencing and asserting control over certain forms of regulation. There was thus strong opposition... to a tax on CO2 emissions, from not just economic interests but also administrative ones', to the extent, indeed, that Heads of Government intervened at the Essen European Council, in December 1994, and agreed to leave CO2/energy taxes to individual Member States. ‘This proposal had important symbolic implications’, Chalmers explains. ‘Tax-raising powers have traditionally been bound up with state-building, in that the submission to fiscal obligations they place on a populace suggests the construction of a unitary territory with central authorities presenting themselves as a “fount of sovereignty”: ibid., p. 673. This Member State sensitivity about Community taxes (or charges) strengthens the hand of opponents of any Commission proposal to establish an EC system of environmentally-differentiated shipping dues; they already have the advantage of the requirement of unanimity for the adoption of such measures, and they might well, in addition, phrase their opposition largely in terms of subsidiarity (see also below, paragraph A4/382).

A4: 4.1.4.2 A Legal Challenge?

353. It is less clear whether or not a successful legal challenge could be mounted against an EC ship emissions measure on the ground that it failed to comply with the subsidiarity and/or proportionality principles. Being Treaty provisions, both are prima facie justiciable. The ECJ has taken cognisance of them (for example, in URBSFA v. Bosman, Working Time and Germany v. Parliament and Council (1997)). Article 13 of the Protocol provides, moreover, that ‘Compliance with the principle of subsidiarity shall be reviewed in accordance with the rules laid down by the Treaty’. A Member State legal challenge is thus a theoretical possibility (an individual would face formidable locus standi obstacles, and a challenge by one of the other Institutions is unlikely, given the greater attachment to the principles of the Commission itself). That possibility is, in practical terms, less likely where the measure in question is adopted (as an economic instrument would be - see Section 4.1.2 above) by the consultation procedure, simply because by definition no out-voted minority States emerge (see also paragraph A4/321 above). But, of course, political objections based on the principles might well have already emasculated the measure at the legislative stage.

354. Although breaches of the principle of proportionality are often pleaded, this rarely results in annulment of a measure by the ECJ. It is settled case law that, in order to determine that a provision complies with it:

it must be ascertained whether the means which it employs are suitable for the purpose of achieving the desired objective and whether they do not go beyond what is necessary to achieve it. Furthermore... if a measure is patently unsuited to the objective which the competent institution seeks to pursue this may affect its legality (Rau v. Commission, at 1125-26).

355. [E]ven substantial negative financial consequences for certain traders’ might, however, be justified by the importance of the objectives pursued, according to FEDESA and Others (at 4064).

356. A major problem for a challenger invoking the principle of subsidiarity would be the dearth of justiciable benchmarks: Gonzalez, 1995; Dehousse, 1994. To date, no Community legislation has been struck down by the ECJ on the ground that it conflicts with the principle. It may be that the Court of Justice will be prepared to do so in future, but will restrict itself to procedural rather than substantive review. This approach was advocated by Advocate-General Léger in Germany v.
Parliament and Council (1997) (see the obiter dicta in his Opinion, at paragraphs 87-90). ‘Although procedural aspects of conformity with subsidiarity, especially the duty to supply reasons, fall comfortably within the ambit of judicial review, it remains difficult to see how the Court could conduct a more intensive form of review without running the risk of second-guessing the political judgement of the legislative institutions’: Weatherill, 1999, p. 30. In Working Time, the ECJ, which ‘rejected at the outset’ the argument of non-compliance with the subsidiarity principle, allowed ‘a wide discretion in an area which… involves the legislature in making social policy choices and requires it to carry out complex assessments. Judicial review of the exercise of that discretion must therefore be limited to examining whether it has been vitiating by manifest error or misuse of powers, or whether the institution concerned has manifestly exceeded the limits of its discretion’ (see paragraphs 55 and 58 of the Judgement).

357.One might add, finally, that the subsidiarity concept is simply too intractable to be justiciable. Mary Robinson has observed that ‘the chief advantage of [subsidiarity] seems to be its capacity to mean all things to all interested parties - simultaneously’ (Robinson, 1996, p. 10); this might be an advantage to a politician, but not to a litigant or his lawyer. Steiner has identified at least thirty different meanings for it: Steiner, 1994, pp. 49-51. The Select Committee on the European Communities of the House of Lords did not believe, in 1991, ‘that subsidiarity can be used as a precise measure against which to judge legislation. The test of subsidiarity can never be wholly objective or consistent over time - different people regard collective action as more effective than individual action in different circumstances.. [T]o leave such legislation open to annulment or review by the European Court on such subjective grounds would lead to immense confusion and uncertainty in Community law’: House of Lords, 1991. It might follow that the principle is capable of being no more than ‘soft law’.

358.Scharpf has argued that the principle is nevertheless justiciable, if only the ECJ were prepared to take a ‘bipolar’ approach to it, looking as closely at the reserved powers of Member States as at the powers of the Institutions: Scharpf, 1994, p. 225. This has found some support among commentators (for example, Chalmers, 1998, pp. 231-32 and 236; but see also 232-33). On the other hand, this appears to conceive the Court as a ‘federal’ supreme court overseeing the application of tolerably clear rules on the demarcation and distribution of powers between the different levels, rather than as one furthering ever-closer integration inside a Community where the distribution of powers is unclear. The ECJ is unlikely, in our opinion, to adopt this approach.

359.The possibility of a successful legal challenge based on either of the two principles to EC ship emissions legislation is, therefore, remote, as long as the Commission follows the appropriate procedures, considers in good faith the arguments for and against action at Community level, chooses the least intrusive form of legislation that is feasible and avoids provisions that are unreasonably onerous for affected parties, including ports, shipowners and oil and bunkering companies.

360.No legal challenge at all is possible on the basis of the subsidiarity principle in areas within the Community’s exclusive competence. The Treaty does not, of course, spell out those areas, and their extent remains largely an open, and highly controversial, question. The Commission might argue, for example, that any ship emissions measure made under Article 95 (or 94) falls, as a harmonisation measure’ within that exclusive competence, while such a measure made under
the Environment Title is patently within an area of mixed competence. This view would not necessarily be shared by the ECJ. The Court has given very little guidance on the point. Arguably implicit in Opinion 1/75 is the view that the unity of the common market requires that it be regulated exclusively by the Community (Chalmers, 1995, p. 95). On the other hand, Advocate-General Léger has indicated, in obiter dicta in his Opinion in Germany v. Parliament and Council (1997) (at paragraphs 79-81), that he is not of the view that the completion of the internal market is a matter always within the Community’s exclusive competence. A possible successful legal challenge could not, therefore, be discounted, whatever the choice of legal base for an EC measure on ships’ emissions.

361. The Commission has, in any event, sought to re-direct the debate on subsidiarity towards what it describes in the Fifth Environmental Action Programme (at p. 71) as the ‘principle of shared responsibility’: Wilkinson, 1992, p. 226. This echoes the sentiment, suggested above passim, that the important question to be answered by this Study, is not whether and how the EC should intervene, but ‘to what level of detail should EC intervention extend?’

A4: 4.1.5 The Principles of ‘Shared Responsibility’ and ‘Minimum Harmonisation’

guidance on the question ‘to what level of detail should EC intervention extend?’

362. As suggested above, ‘the Community order and, in part, the Court of Justice, have established a system where both the Community and the Member States have environmental responsibilities’ (Ziegler, 1996, p. 8). It has thus been necessary to develop principles to co-ordinate this shared responsibility. Ziegler suggests (ibid.) that, ‘in its harmonisation projects, by using safeguards clauses and minimum requirements, the Community provides for the application of more stringent national environmental measures. The introduction of systematic options for diverging national measures under Article 100a(4) (now 95(4)) and Article 130t (now 176) EC has provided a complementary instrument. The mutual information and compulsory notification of planned national measures [required by these] constitute an essential element in this system for balancing the interests in question’. Conversely, when drawing up its proposals with a view to progressively establishing the internal market, the Commission is required (by Treaty Article 15) to ‘take into account the extent of the effort that certain economies showing differences in development will have to sustain’ and may propose appropriate provisions, including temporary derogations from EC measures adopted under Article 95. In the case of a measure being adopted under Article 175, moreover, the Council may grant a temporary derogation where it ‘involves costs deemed disproportionate for the public authorities of a Member State (emphasis added)’ (Article 175(5)); the costs to private industry, including privatised utilities, cannot be taken into account.

363. It follows that, if the Community as a whole is unwilling to establish harmonised standards on ships emissions up to the high Swedish or Mariehamn standards, there is scope for permitting those standards to continue to operate, over and above a general minimum standard. There is scope for other Member States to establish higher standards too. In this way their fear that a common standard might be set at too low a level for local needs or preferences will be allayed. At the same time, it can grant temporary derogations, or even financial assistance (see below Section 4.2.2.2) to less developed Member States.
364. The Article 174(3) requirement that the Community, in preparing its environmental policy, take account of: ‘available scientific and technical data’; ‘environmental conditions in the various regions of the Community’; ‘the potential benefits and costs of action or lack of action’; and ‘the economic and social development of the Community as a whole and the balanced development of its regions’ has been discussed above (paragraphs A4/325-26). In addition, Article 174(2) provides that ‘harmonisation measures answering environmental protection requirements shall include, where appropriate, a safeguard clause allowing Member States to take provisional measures, for non-economic environmental reasons, subject to a Community inspection procedure’. These provisions apply irrespective of the legal base chosen for EC measures and have potentially far-reaching effects on EC environmental law (see Chalmers, 1995, p. 91 et seq.). It would, for example, be almost impossible for the ECJ to apply the proportionality principle to negate a derogation under Article 174(2), because this would invariably involve it substituting its judgement for that of the other Institutions involved.

365. As to the provisions specifically permitting higher national standards, it was suggested above (at paragraph A4/314), that Article 175 (ex 130s) is far more flexible than Article 95 (ex 100a). If Community measures are based on the latter, Member States may maintain higher standards only on grounds of ‘major needs’ (Article 95(4)), but, if on the former, Member States may maintain or introduce more stringent protective measures, subject only to the condition that these must be compatible with the Treaty (Article 176)(in practice this means compatible in particular with Articles 23 (ex 9), 25(ex 12), 87 (ex 92) and 90 (ex 95); see further below). Under Article 95, the introduction of new, higher, national standards is permissible only where the Member State deems it necessary on the basis of ‘new scientific evidence relating to the protection of the environment… on grounds of a problem specific to that Member State arising after the adoption of the harmonisation measure’ (Article 95(5)); this is very restrictive language.

366. Under both Articles the Member State must notify its stricter measure to the Commission, but under Article 95, it must also give ‘the grounds for maintaining them’. Article 176 does not provide for any verification procedure; it follows that the Commission will exercise its responsibility in respect of actions incompatible with the Treaty in the normal way. National departures from Article 95 harmonisation measures, however, must be managed by the Commission in accordance with its paragraphs (6)-(10). In particular, the Commission must approve or reject them ‘after having verified whether or not they are a means of arbitrary discrimination or a disguised restriction on trade between Member States and whether or not they shall constitute an obstacle to the functioning of the internal market’.

367. The differences between the two articles should not, however, be overstated. A potentially important Amsterdam Treaty addition, given that the Commission did not in the past react to notifications within six months in about 80% of cases, is that Commission inaction will be deemed to be authorisation after six months have elapsed: Article 95(6). In addition, France v Commission is authority that Article 95(6)-(10) should be construed narrowly. The Commission will also in practice check national standards derogating from Article 176 measures for conformity with the basic principles of Article 28. In practice, under either article, ‘Only in cases where [national departures from EC measures] are abused for non-ecological aims or interfere with the common market in a disproportionate way will the Community intervene’ (Ziegler, 1996, p. 9). On the other hand, Ziegler admits that even then it is often difficult to find a balance, and this often involves reaching a compromise that works (as, for example, that in Danish Beer Bottles).
368. The Commission’s likely approach is well-expressed in paragraph 14 of its Communication on the Single Market and Environment, as follows:

In assessing national rules under Articles 95 (4) (5) (6) (ex-100A §4) or 176 (ex-130t), [the Article 174 principles, described above in Section 4.1.3] will be applied rigorously, and the justifications offered by Member States will be analysed not only from legal point of view but also from scientific, technical, and economic standpoints. A Member State might justify a level of protection higher than that defined at Community level, for instance by reference to circumstances specific to the Member State in question.

369. Given the particular sensitivity to acidification of areas of Scandinavia (as well as some other areas in the EU) and local concentrations of ships and their emissions, it would appear relatively easy for certain Member States, including Sweden, to construct an argument from special circumstances. On the other hand the precise circumstances in which Article 95(4) can be relied upon remain shrouded in mystery (Flynn, 1987; and France v Commission).

370. Our opinion, given above (in Section 4.1.2), is that a Commission proposal for an EC ship emissions measure should be based, to the extent that either is sufficient, on Article 175, in preference to Article 95. Such a choice, if successful, would have the advantage of the greater flexibility illustrated in the immediately preceding three paragraphs. It would also be freer of interpretative difficulties. If, however, Article 95 were preferred, it is unlikely that the existing Swedish shipping dues system, or other national measures modelled on it, would require a great deal of Commission management, let alone intervention.

371. A note of warning is, nevertheless, appropriate. In drafting a proposal for a directive on ship emissions, the Commission should be very precise. Imprecision would render it debatable in some instances whether or not a Member State is maintaining or introducing more or less stringent measures. Given that Article 176 effectively does away with the doctrine of pre-emption in respect of Article 175 measures, following Waste Directive, it ‘enshrines Member States’ rights [subject to their compliance with other Treaty provisions] to maintain measures which distort or restrict competition within the single market’: Chalmers, 1995, p. 91. ‘As it is unclear whether this provision reserves powers to the Member States or constitutes a derogation from compliance with provisions taken under [Article 175] it is unsure whether any such national measure is subject to the proportionality principle or how it would be applied. This possible lack of judicial control is likely to be exacerbated by differing legal cultures and geographical circumstances bringing in disagreements as to whether a Member State is introducing more or less stringent measures where EC legislative provisions are insufficiently precise’: ibid..

A4: 4.2 Financial Incentives and Disincentives to Reduce Ships’ Emissions in EU Waters

A4: 4.2.1 Introduction

372. As mentioned above, the Fifth Environmental Action Programme encourages the use of a broad range of instruments, by a broad range of actors, to resolve environmental problems. As also mentioned, market-based (economic and fiscal) instruments are often regarded as particularly appropriate contributory instruments, seeking, as they do, to reflect environmental costs in the market mechanism.
The Commission employs a broad definition of market-based instruments. According to the Report of the 1990 Working Group of Experts on the subject (at p. 7), they extend to measures that 'affect through the market mechanism the costs and benefits of alternative actions open to economic agents, with the effect that their behaviour is favourable to the environment' and include: environmental taxes and charges; financial aid; tradeable emissions permits; deposit-refund systems; enforcement incentives; industry agreements; and environmental liability (see also paragraph 4.9 of the Acidification Strategy). Most prominent among the new market-based instruments are environmental taxes and charges, which are increasingly used in the Member States (EEA 1996). Evidence from evaluation studies suggests that they have achieved their environmental objectives at a reasonable cost (ibid.). Therefore, without prejudice to the potential utility of other market-based instruments, alone or in combination, in helping to control ships' emissions, this Study examines in particular the first category listed above. It also examines the second, in view of its close relationship with the first: taxes and charges operate as subsidies where the revenues are hypothecated in such a way that certain enterprises or productions are favoured; and exemptions from levies are subsidies, 'even when these exemptions are necessary to prevent domestic firms from being placed at a competitive disadvantage compared with their competitors that do not have such levies': Communication on Environmental Taxes and Charges in the Internal Market, paragraph 27. In addition, as the Swedish example described in Appendix 3 illustrates, States often resort to both together. The Study also prefers to use the dual term 'taxes and charges' in preference to the Commission's umbrella term, 'levies', as use of the latter is not always consistent and there are differences between taxes and charges.

Market-based instruments are less direct forms of control than regulatory approaches, 'as the idea is to build environmental requirements into market conditions by steps internalising the externalities involved' (Bardi, 1996, p. 204). They are also inherently evolutionary in nature. According to the Commission, they 'should be progressively reoriented towards discouraging pollution at source and encouraging clean production processes, through market signals' (Fifth Environmental Action Programme, p. 71). 'This kind of influence [thus] has a more remote or delayed effect on the polluting economy, but possible a better chance of achieving revised economic management systems' than regulatory approaches (Bardi, loc. cit.).

A4: 4.2.1.1 Financial Disincentives (Taxes and Charges)

According to paragraph 10 of the Communication on Environmental Taxes and Charges in the Internal Market, the term 'taxes and charges':

should be understood to cover all compulsory, unrequited payments, whether the revenue accrues directly to the Government budget or is destined for particular purposes (e.g. earmarking)

The use of ‘Government budget' is well advised: even the CO2/Energy tax, while proposed as an EC tax, would have involved payments into national government coffers, and not at all to the EC Institutions. The EC's 'own resources' are restricted to a small fraction of Member State VAT receipts, as determined from time to time by those Member States. While import duties, where the revenues must be transferred to the EC, might be regarded as ‘EC’ taxes, in essence the generation of tax revenues and decisions as to their use remain within national competences. It follows that it would be unrealistic to attempt to establish
environmentally-differentiated shipping dues as ‘EC’ rather than Member State taxes.

377. The Communication proceeds to help identify environmental taxes and charges:

One likely feature for a levy to be considered as environmental would be that the taxable base of the levy has a clear negative effect on the environment. However, a levy could also be regarded as environmental if it has a less clear, but nevertheless discernable positive environmental effect. One such example could be differentiations of any tax or charge based on environmental criteria’ (paragraph 11).

378. Environmental taxes and charges can, moreover, be classified as either ‘emission levies’, which involve payments that are directly related to the real or estimated pollution caused, or ‘product levies’, which are applied to raw materials and intermediate inputs such as fertilisers, pesticides, natural gravel, and ground water, and on final consumer products (paragraph 12). Under these criteria, environmentally-differentiated shipping dues would be treated as emission levies, whereas a tax on marine bunker fuels at the point of production or supply might be better seen as an environmental product levy.

379. In practice, most of the market-based instruments proposed by the Commission have been taxes and emission charges. There have, however, been few such proposals, and, as indicated above (in Section 4.1.4.1) in relation to the most ambitious proposal to date, the CO2/energy tax, by no means all have been adopted.

380. Indeed, the existence of Community taxes or charges in environmentally relevant areas does not, in general, preclude Member States from adopting their own taxes or charges. The EC is committed to harmonisation of national fiscal laws in respect of excise duties, turnover taxes and other forms of indirect taxation to the extent necessary to ensure completion of the internal market. Article 93 (ex 99) provides for the Community competence in this respect (see also Regulation 659/1999), but, as it ‘does not apply to direct taxation and to product charges Member States maintain the right to introduce emissions charges, environmental taxes, or pollution duties’: Ziegler, 1996, p. 190 (but see paragraph A4/309 above). The Commission monitors and generally keeps under review environmental taxes and charges at national level, in case action at Community level becomes desirable (Communication on Single Market and Environment, paragraph 17). Its criteria for intervention are set out in the Fifth Environmental Action Programme, as follows: ‘as such charges become more widespread and have real environmental impact and, in consequence, generate more financial income, some intervention at Community level may be necessary to ensure that charging systems are designed in a transparent and comparable way, and to ensure that distortions of competition within the Community are avoided... especially where emissions or discharges from mobile sources are concerned’ (p. 71). This suggests that intervention is more appropriate at a later rather than an early stage in the evolutionary development of economic instruments applied to a particular sector. The paucity and novelty of national economic instruments applying to ships’ emissions might thus be argued to urge some degree of restraint upon the Commission. On the other hand, as mentioned above, McRory has suggested (1997, p. 48) ‘that, despite the principle of subsidiarity’, following Bic Benelux SA v Belgium, ‘major future eco-taxation initiatives will have to be developed more at EC than national level’. Where, besides, the evidence is very clear, as it appears to be in the case of ships’ emissions, that an economic instrument is by far the most cost-effective
strategy (or major element of a strategy) for tackling an environmental problem, the need for the Commission to exercise restraint seems a good deal weaker.

381. The results to date of the EC’s tax harmonisation efforts have been modest; they are largely limited to the harmonisation, under Article 93, of minimum excise duties on alcohol, tobacco and, most relevant to this Study, mineral oils (see Directives 92/81 and 92/82). Even in these instances, Member States may, and do, request Council authorisation to apply reduced tax rates or exemptions, for example for environmental protection purposes. In addition, Member States have the right to apply reduced rates of or grant exemptions from excise duties on mineral oils used for certain purposes, including for certain forms of public transport (Decision 92/510), and for ship and aircraft bunkers (in this case, apparently on the ground that it is largely consumed outside the jurisdiction of the country where it is purchased: ENDS Report 259, p. 4). The Community’s further efforts to harmonise turnover taxes is at present being blocked by the UK, which is concerned that harmonisation would lead to capital flights from its offshore banking centres to havens beyond the EU.

382. It is important to recall that the subsidiarity principle has been invoked in this field (see Section 4.1.4.1 above). The fact is that ‘raising revenue is a cherished aspect of national sovereignty. Transfer of this power to the Community is a very visible and, to some, alarming manifestation of diminution in national sovereignty’: Weatherill and Beaumont, 1999, p. 492. Besides this, the functions of a taxation system are manifold: it is quite wrong to regard Member States’ tax systems simply as revenue-raising mechanisms that (by virtue of the great disparities between them) act as troublesome distortions of free trade. ‘Taxation involves politics, not simply economics’: ibid., pp. 492-93. This is perhaps best seen in the political demise, in Spring 1999, of Oscar Lafontaine, who, as Germany’s Minister of Finance, proposed stronger EC tax harmonisation efforts, thus contributing to his reputation in some circles as ‘the most dangerous man in Europe’. It is also reflected in the requirement of unanimity in the Council in respect of taking fiscal measures. Taxes and charges are, unlike exemptions from excise duties, coercive in nature. It is possible to argue that charges are less sensitive in this context than taxes, but, since their authorisation ultimately stems from the same sovereign authority as does that of taxation, this is largely a distinction of perception, rather than reality. Finally, while environmental taxes and charges have the virtue of seeking to reflect environmental costs in the market mechanism, they also have the vices that they are unlikely to do so perfectly and that by their very nature they intervene in (and possibly ‘distort’) the market that the Community is seeking to perfect.

383. It follows that the Commission and Council have been rightly cautious in this area, to the Parliament’s (obvious) disappointment (see Resolution A4, commenting on Environmental Taxes and Charges in the Internal Market). The Court too has tended to take a restrictive interpretation (see ibid., paragraph 7, and below, at paragraph A4/405). Over-caution should, however, be avoided. As noted above, the EC has increasingly, in pursuance of its environmental policy, permitted environmental to prevail over free trade interests. It is thus increasingly possible that tax harmonisation measures will be justified in future on environmental rather than internal market grounds. Whether or not this occurs will depend upon the purpose, nature and possible indirect impacts of the harmonisation measures in question.
384. Whether the measures are adopted by the Community or by Member States, they are subject to the provisions of the Treaty. These include the relevant rules on tax, in Articles 90-93 (ex 95-99), but others too. 'The use', indeed, 'of environmental taxes and charges and of their revenues impinges, directly or indirectly, on several areas of Community legislation other than environmental policy, and in particular on competition, single market and taxation policies. Many concrete cases have shown the importance of improving integration between these different areas of policy': *Environmental Taxes and Charges in the Internal Market*, paragraph 6. This Appendix will proceed to outline the legal and related policy issues arising from this below, in respect of both an EC and possible national environmental taxes and charges on ships' emissions. In addition, 'in the development of market instruments or financial instruments the clarification and careful consideration of the environmental, economic and, last but not least, the enforcement consequences is vital. Strongly favourable market forces are not necessarily helpful to environmental improvement, nor are they necessarily enforceable': Bardi, 1996, p. 204). The economic aspects of economic instruments applied to ships’ emissions are examined elsewhere in the Study; the enforcement aspects will be discussed below in this Appendix. Finally, the potential impact of such instruments on WTO obligations towards third States has been discussed above (in Section 3.6).

**A4: 4.2.1.2 Financial Incentives (Subsidies)**

385. The Commission believes that, as well as disincentives (taxes and charges), 'positive financial incentives' (subsidies) have their place in achieving the EC’s desired environmental objectives: *Guidelines on State Aid for Environmental Protection*, paragraph 1.2. It accepts, however, that ‘Subsidies may be a second-best solution in situations where the polluter pays principle… is not yet fully applied’, because they ‘may distort competition, create trade barriers and jeopardize the single market’: *ibid*, paragraph 1.4.

386. The Community may itself provide subsidies under several Treaty provisions and has adopted certain programmes for environmentally-justified regional subsidies pursuant to the Economic and Social Cohesion Title of the Treaty. These are discussed further below to the extent that they have potential relevance in assisting the implementation of an EC ship emissions regime.

387. The existence of Community aids in environmentally relevant areas does not, in general, preclude Member States from granting their own state aids, subject to the requirements of Articles 87-89 (ex 92-94) of the Treaty. These will also be discussed below, in the same light.

**A4: 4.2.2 Community Measures**

**A4: 4.2.2.1 Financial Disincentives (EC Taxes and Charges)**

388. In *Environmental Taxes and Charges in the Single Market*, the Commission describes various pieces of Community secondary legislation that enable the use of economic instruments for environmental protection by Member States. Of more interest in this context has been the movement towards employing such instruments at the EC level.

389. The existing EC-mandated environmentally-differentiated charges most pertinent to this Study are, perhaps, the SBT dues, described in detail in Appendix 3.
390. An ‘EC’ environmental tax from which something can be learnt, moreover, is the ambitious, and failed, proposal for a CO2/energy tax. This, it has been mentioned, was not to involve a new revenue-raising power for the Community, but was restricted to payments into national treasuries. It recognised the need for harmonised monitoring and supervision arrangements in order to ensure the proper working of the tax without impeding the free movement of goods or unduly distorting competition. It also recognised the need for reduced tax rates in the initial phases, in order to offset any required investment expenditure, and the progressive subsequent ratcheting up of the rates. The initial minimum rate proposed for the taxation of heavy fuel oil (at the time of its release for consumption) was ECU 17.21 per 1000Kg, with Member States free to charge a higher rate if they wished. It is unclear, however, whether or not one can conclude that a minimum rate of ‘ship emissions’ taxation equivalent to the proposed CO2/energy tax rate would or would not be acceptable to the Member States. The entire Community was, of course, concerned about the potential impacts on its competitiveness of a unilateral imposition of such a tax. The position of individual Member States is also instructive: the Benelux States, Denmark, Germany and Italy were in favour of the proposal, and France also agreed in principle, as long as (in view of its heavy reliance on nuclear power) it concentrated on CO2 emissions rather than energy in general; the four Cohesion countries wished to defer its application to them, pending their further economic development; but the then UK Government disagreed with any new EC tax on principle. It is clearly possible to extrapolate from this the proposition that all Member States would be concerned about any loss of competitiveness arising from an EC ship emissions tax.

391. In addition, in its White Paper on Fair Payment for Infrastructure Use, the Commission sets out how a new charging system could link the charges levied for the use of transport infrastructure, such as ports, roads, air traffic services and railways, to the costs that this use imposes. Working with a specially created committee of transport experts appointed by Member State governments, it aims to develop new ‘user-pays’ charging systems, relating charges to marginal social (including environmental) costs. The intention is not to set the actual charging levels but to establish a framework within which Member States would implement specific charges. The Commission would hope to minimise distortions by setting common ground rules for charging in all sectors. The system must be introduced gradually and progressively, because it must take into account the different starting points, in terms of liberalisation, of the various modes of transport, the complex issues involved in developing new charges and other constraints, such as the need to raise revenue from transport charges. According to the White Paper, the work will be in three phases, as follows:

In a first phase, 1998-2000, the Commission with the Member State’s committee would establish ways of estimating the marginal costs of transport, develop transparent accounting methods and advice on statistical and research needs (sic).
In a second phase, 2001-2004, those principles would be put into effect in road, rail, ports and airports – some pieces of legislation are already in discussion, for example a Commission proposal for legislation on airport charges.
In a third phase, beyond 2004, the Commission and committee would review the work to date and consider how to take it further.

392. This project is ambitious. ‘Balancing [the objectives of efficient movement of goods between, as well as through and within Member States] is difficult if not impossible. Charges which keep infrastructure costs in balance between two forms of transport within each of two Member States will in all likelihood result in charges for each form of transport between the two Member States that are out of
harmony’ (R Smith, 1987, pp. 151-52), and, one assumes, vice versa. This notwithstanding, an EC ship emissions measure should be sufficiently flexible to accommodate the potential effects of any movement, however imperfect, towards harmonising infrastructure pricing between the different transport modes. See now paragraph A4/418 below.

A4: 4.2.2.2 Financial Incentives (EC Subsidies)

393. The Commission has executive powers in administering the EC’s Structural Funds, including the Cohesion Fund and the European Regional Development Fund (ERDF).

394. The Cohesion Fund ‘shall provide a financial contribution to projects in the fields of environment and trans-European networks in the area of transport infrastructure’ (Article 162 (ex 130e) of the Treaty) of Member States with per capita GNPs less than 90% of the EC average (at present Greece, Ireland, Portugal and Spain). It has clear potential relevance to an EC ship emissions regime, based on in-port schemes.

395. The ERDF is of less obvious relevance to this Study. It ‘is intended to help to redress the main regional imbalances in the Community through participation in the development and structural adjustment of regions [in any Member State of the Community] whose development is lagging behind and in the conversion of declining industrial regions’: Article 160 (ex 130c) EC Treaty; see also Article 1 (Objectives 1 and 2) of Regulation 1260/1999 on the Structural Funds in general. It is of much less importance to the Study, being concerned mainly with investments and infrastructure in relatively few underdeveloped areas, and involving smaller individual and total amounts than the Cohesion Fund, which thus receives the longer treatment here. It is, however, of some potential relevance, because ‘Increased concern in the 1980s over the ecological impacts of EC government led to, inter alia, funds [being] set aside under the so-called ‘ENVIREG programme’ for Structural [mainly ERDF] Funds to be spent on environmental matters’: Chalmers, 1999, p. 668; see also Article 1(f) of Regulation 4254/88. In respect of the period 2000-2006, Article 2(2)(e) of Regulation 1261/1999 now requires ERDF regional aid to support, inter alia, ‘the protection and improvement of the environment, in particular taking account of the principles of precaution and preventative action in support of economic development, the clean and efficient utilisation of energy and the development of renewable energy sources’. Regulations 1260/ and 1261/1999 both make frequent reference to the Community’s environmental objectives; the former expressly requires all Structural Fund aid to be compatible with the Community’s environmental policy (Article 12), and the latter is also framed in terms of sustainable development. It is clear, however, that any ERDF aid should be directed at assisting ports to establish and administer an environmentally-differentiated shipping dues system. It should not aim to assist shipping itself.

396. The Cohesion Fund is governed by Regulation 1164/94, as amended by Regulations 1264/ and 1265/1999. The Fifth Environmental Action Programme imposed (at 75) two conditions on Cohesion Fund projects: (i) they ‘must derive from Community legislation. For projects in the field of the environment this means that they must result from a Community decision which implies disproportionate costs for the public authorities of the Member State in question (emphasis added)’; and (ii) prior adoption by the Council of an economic convergence programme. To be eligible for assistance during the period 2000-2006, the beneficiary Member States must also have introduced a programme as provided for in Articles 3 and 7 of Regulation 1466/97 (new Article 2(4)).
397. Measures eligible for Cohesion Fund assistance include environmental projects contributing to the achievement of the objectives of Article 174 (ex 130r) of the treaty, including Community measures adopted pursuant to Article 175 (ex 130s) and, in particular, projects in line with the priorities in the Fifth Environmental Action Programme (Article 3(1); Recital 11 also invokes the polluter-pays principle). They also include ‘transport infrastructure projects of common interest, supported by Member States’, now restricted to those ‘which are identified within the framework of the [EC] guidelines .. on the development of the trans-European transport network’ (Article 3(2), as amended). It is clear, therefore, that Cohesion Aid could be directed at assisting ports to establish and administer an environmentally-differentiated shipping dues system. It should not aim to assist shipping itself (as to the WTO difficulties surrounding the latter possibility, see Section 3.6.2 above).

398. Given the availability in the Fund of EUR 18 billion at 1999 prices for the period 2000-2006, the concentration on large, high-value projects and the retention of the principle of a high level of assistance (free from the additionality’ principle and historically at rates in the region of 80-85% - albeit now slightly modified: see below), the prospects for applications for assistance in implementing an EC ship emissions regime from the four eligible States are good. This is particularly the case in relation to aid for ports forming part of the trans-European transport network (Regulation 1655/1999 is also relevant to this), and for Spain, which receives the bulk of the funding. Indeed, Spain appears to be the only one of the four to date to receive major aid from the Fund in respect of marine environmental protection: 85% of the 9.78 million ECU estimated cost of its development of a national network of maritime traffic control and pollution response stations has come from the Fund, and six Spanish ports have been helped (Project 97/11/15/001). Indeed too, Spain’s indicative allocation has been increased, and Ireland’s decreased, for the period 2000-20006, and eligibility is subject to a mid-term review to be carried out before the end of 2003, when Ireland’s GNP is widely expected to exceed the threshold percentage. Meanwhile, the indicative allocation (set out in Annex 1 to the Regulation) is as follows:

- Spain: 61% to 63.5% of the total
- Greece: 16% to 18% of the total
- Ireland: 2% to 6% of the total
- Portugal: 16% to 18% of the total.

399. An Taisce and WWF and Greenpeace v Commission arguably put the Commission on notice of its legal responsibility to ensure the compatibility of its funding with its environmental objectives. In view of this, according to Joanne Scott (1999, p. 637), it pushed ‘in the direction of even greater decentralisation in structural funding, and for a further reduction in its own role in day-to-day planning and administration’. This change is now embodied in the 1999 Regulations, together with a strong commitment to more fully integrate sustainable development into the operation of the Fund, particularly at the level of ex ante project appraisal. In addition, the significantly high levels of assistance are now adjusted so as not to discourage Cohesion States from introducing their own environmental charges in accordance with the ‘polluter pays’ principle: see Recital 11 of Regulation 1264/1999.

400. Notwithstanding the greater decentralisation of management, the Commission can exert much closer control over Cohesion Fund than ERDF projects (Scott, p. 648). It could thus hold out the prospect of Cohesion Funding as an incentive to the ‘Southern’ Cohesion States to agree to a strong EC ship emissions regime that they might otherwise oppose. In addition, this would be one area where Cohesion
Funding could be guaranteed not to meet with opposition from environmental NGOs, such as An Taisce, WWF and Greenpeace.

401.As noted above, moreover, ship, as well as aircraft, bunker fuel is at present exempt from taxation. This is subject to regular review, and while the greater recent pressure has been directed at removing the aircraft exemption (see the Commission’s proposal for a directive, COM(97) 629; also COM(97) 154 final), it has also been aimed at the shipping exemption (see, for example, Trittin, 1998). These pressures arise more from concerns about climate change than acidification, but abolition of the ship exemption, which, as a fiscal measure, would require unanimity in the Council (see paragraph A4/320 above), would have potentially beneficial effects on acidification, which should be taken into account by any EC ship emissions measure. That exemption is, according to the Court of Auditors (1993, paragraph 5.5) ‘a significant factor to the operator and Member States[s] concerned’. In suggesting this, however, it assumes that almost all the bunkers used by Community ships is refined in the Community, which is not accurate (see Section A1/2 above and particularly Section A7/1.2 below). The main governmental opposition to the removal of the aircraft exemption comes from the Southern Member States (ENDS Report 259, p. 5), and this might well also be the case in relation to ships; Greece benefits in particular from the marine bunker fuel exemption.

A4: 4.2.3 Member State Measures

A4: 4.2.3.1 Financial Disincentives (National Taxes and Charges)

402.Each Member State is free to establish its own tax system, including in respect of environmental taxes and charges, until harmonisation is realised. The Commission overview of the extent to which EU and EEA countries had availed themselves of this opportunity, as of October 1996, in the table appended to its Communication, Environmental Taxes and Charges in the Internal Market, is still useful, albeit in need of updating (see Single Market and Environment, paragraph 33). Of particular importance to this Study are the existence of sulphur, NOx and carbon/energy taxes in several countries. This is especially the case where these are potentially or actually applicable to ships and their bunkers; some details are given in Appendix 3, especially at paragraphs A3/32 and 49. The use of environmental taxes on air transport is also a positive sign for the potential utility of taxes and charges in the shipping field.

403.Much more important are the claims from various quarters that several of these taxes have been highly successful: see, for example, SEPA, 1999; OECD, 1997; EEA, 1996. It is, on the other hand, too early to determine whether such instruments alone can hasten the development of cleaner technology, and the early enthusiasm for them has been tempered by the emerging view that ‘such instruments should complement and not replace direct regulation’: Elvingson, 1994. In effect, the absence of high price elasticity of demand might require a tax, working alone, to be set so high as to invite substantial evasion, thus requiring policing costs to escalate.

404.It would be superfluous to attempt to set out in detail in this Study the rules surrounding the imposition of national environmental taxes and charges, as the Commission has done so, in Environmental Taxes and Charges in the Internal Market (and D-G Tax and Customs will be able to clarify this far better than we). The following thus restricts itself to listing the main points relevant to national
environmentally-differentiated shipping dues, particularly in the absence of Community measures.

405. According to paragraph 20 of that document, ‘Article 95 [now 90, which prohibits internal taxation that discriminates against goods imported from other Member States] does not give the Community a right to judge whether a levy in a Member State is excessively high in relation to its environmental objective (Commission v Greece).’ Jurisprudence on Article 95 [now 90] has confirmed the application of the criteria of proportionality, which involves balancing the gain for the environment with the potential impact on the single market, only for administrative control measures of the levy (Commission v France). One might add, indeed, that the ECJ has ‘shown a readiness to develop the law forbidding discriminatory internal taxation under Article 90 (ex 95) in order to accommodate domestic tax policies which are designed to favour environmental protection and sustainable development’: Weatherill and Beaumont, 1999, p. 1035, citing Outokumpu Oy and Chemial v DAF. It follows that, to the extent that Article 90 (ex 95) applies to shipping dues, a limited degree of discrimination, as between Member States, in their environmental differentiation might be justified for environmental purposes. As, however, the Article expressly deals with taxes on products (in free circulation within the Community), it is far from certain that it applies to shipping dues.

406. Paragraph 42 adds:

The assessment of whether an environmental levy is necessary and proportionate to fulfil the objective of protecting the environment has to be made on a case-by-case basis. In practice the assessment will often depend on factors such as the level at which the levy is fixed, the environmental gain expected by the measure and the amount of the administrative and other relevant costs connected with the regulated activity. The assessment of the necessity and proportionality of the measure may also depend on factors such as culture and consumer behaviour.

407. Beyond this, the Communication’s main thrust is to describe when an aid element contained in an environmental tax or charge infringes the Treaty rules on compatibility with the common market. Before we turn to this, however, it is pertinent to point to the agreement of the EC Finance Ministers, in Council in December 1997, to develop a package of non-binding measures to deal with the problems of ‘harmful tax competition’. This step, taken at the Commission’s initiative (COM (96) 546; COM (97) 564), demonstrates a willingness among Member States to debate such issues within the Community framework. It seems to aim to at least partially tackle the anomaly that, whereas Article 90 eliminates internal discrimination within a Member State, it does nothing to tackle divergence between Member States. It seems far from certain, however, that any disparity between Member State systems of environmentally-differentiated shipping dues could ever amount to such ‘harmful competition’.

A4: 4.2.3.2 Financial Incentives (National Subsidies)

408. Predominant responsibility for financing the Community environmental policy remains with the Member States (Article 175(4) (ex 130S(4))). Thus most environmental subsidies still come from them. The Swedish system of environmentally-differentiated shipping dues, it is explained in Appendix 3, involves an element of subsidy to permit compliance with the NOx standards, and it might prove necessary to apply such State aids in support of a similar EC system. It is thus important to examine the EC law governing the same.
409. In the words of the Commission (Environmental Taxes and Charges in the Internal Market, paragraph 26):

According to Article 92 (now 87) of the Treaty, any aid granted by a Member State which distorts or threatens to distort competition shall be incompatible with the common market. As a general rule, an aid element contained in a levy system cannot be authorised by the Commission if other provisions of the Treaty are being infringed. Thus, it first has to be assured that an environmental levy does not run counter to these other provisions, in particular Articles 9, 12, 30-36 and 95 (now 23, 25, 28-30 and 90).

410. It would perhaps have been more accurate to use ‘or’ before ‘95’ in the last sentence. The Court has consistently held (most recently in Outokumpu Oy) that provisions relating to charges having equivalent effect (such as Articles 23 and 25 (ex 9 and 12) and those relating to discriminatory taxation (Article 90 (ex 95))) cannot be applied together. Where a 100% refund of a tax or charge to a domestic undertaking within the same industry is intended solely to provide it with financial support for its specific advantage, the refund will be considered a customs duty, to which Article 25 (ex 12) applies. Where such a refund is less than 100%, it is likely to be dealt with under Article 90, as well perhaps as Article 87 (ex 92). Where the revenues are paid into the general treasury, however, thus breaking the link between it and the aid given the industry, it fall to be dealt with under Article 87 alone: see especially Commission v Italy.

411. Articles 87-89 (ex 92-94) establish a special mechanism whereby the Commission must be notified of State aids in order to assess their compatibility with these rules, and the Commission takes this role very seriously (it is an element of Dealing with key market distortions, the second of four ‘Strategic Targets’, in the Commission’s Action Plan for the Single Market, endorsed by the Amsterdam European Council of June 1997). Regulation 994/1998 now helps to streamline this control of, inter alia, environmental state aids.

412. The Court looks to the effect of a measure, rather than its form, in determining whether or not it is a state aid. It has widely defined ‘state aid’ to include any financial provision supplied by the State which ‘mitigates the charges which are normally included in the budget of an undertaking’ (Steenkolenmijnen v High Authority), or measures that procure benefits for particular undertakings (Denkavit), at least where these seek to create an advantage amounting to an additional burden - over and above general economic policy - for the Member State in question: Sloman Neptun; but see also Italy v Commission (1974).

413. The Court’s wide definition has, however, limited impact in terms of restricting state aids in support of a ship emissions regime. Article 87(3) (ex 92(3)) lists types of aid that may nevertheless be considered to be compatible with the common market, granting the Commission considerable discretion in this regard, which the Court will be slow to question: Matra v Commission. The list includes two categories of particular relevance. Sub-paragraph(c) permits ‘aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest’. This has been used by the Commission as the base for its various guidelines on state aids. Sub-paragraph (b) lists, moreover, ‘aid to promote the execution of an important project of common European interest or to remedy a serious disturbance in the economy of a Member State’. This was held in Glabervel to include ‘concerted action by a number of Member States to combat a common threat such as environmental pollution’. According to paragraph 3.7 of the Community Guidelines on State Aid for Environmental Protection, this extends
to aid essential ‘to promote the execution of important projects [clearly] of common European interest which are an environmental priority and will often have effects beyond the frontiers of the Member State or States concerned’. In such cases, the Commission will consider aid at higher levels than those established in ‘regular’ (Article 92(3)(c)) cases. The Council may even, acting by a qualified majority on a proposal from the Commission, extend the list to non-listed categories of aid (Article 87(3)(e)).

Given the Court’s reluctance to intervene, the Commission’s guidelines (as well as Regulation 994/1998) are very important to an assessment of the likely success of the grant of state aids in support of an EC ship emissions regime. This is so notwithstanding that the Commission is prepared, on appropriate occasions, to authorise individual provisions of state aid that strictly fall outside the terms of those guidelines. When considering doing so in this instance, however, it should bear in mind the possible WTO law constraints discussed in Section 3.6.2 above, especially if the State aid in question aims only to assist EC ships. The key guidelines in this context are the Community Guidelines on State Aid for Environmental Protection, which are still in operation pending a review (additional guidance on this is given, as noted above, in Environmental Taxes and Charges in the Single Market (paragraph 26 et seq.)). Further guidance might also emerge soon in a set of guidelines on the financing of port infrastructure, discussed in paragraph A4/418 below. The Community Guidelines on State Aid to Maritime Transport are not really relevant.

The main hurdle for any kind of aid to jump in order to fall within any of the guidelines is that it must facilitate adjustment to new standards: Chalmers, 1995, p. 82. ‘There is, furthermore, a central division between operating aid and aid for investment, the former being prima facie illegal and the latter being, within certain limits, prima facie legal’: ibid. This distinction is certainly observed in the Swedish scheme described in Appendix 3. It can be argued, however, to be somewhat arbitrary in relation to state aid for environmental purposes, ‘as the cost for an enterprise in complying with environmental standards will not just include the purchase of new equipment, which would qualify for aid for investment [see, for example, Commission Press Release, 8 December 1993] but also its operation, which would be operating aid’: ibid.. It can also be argued that the Commission’s individual decisions on state aids show little institutional co-ordination: ibid., at 83. The Commission itself has suggested, in the Single Market and Environment (at paragraph 33) that a review the Community framework for state aids for environmental protection might be appropriate. On the other hand, the Commission claims to make consistent exceptions to the principle that operating aid is impermissible in certain well-defined circumstances, including in the field of ‘relief from environmental taxes’: State Aid for Environmental Protection, section 3.4. This may be authorised, it states, ‘where it is necessary to offset losses in competitiveness, particularly at international level. A further factor to be taken into account is what the firms concerned have to do in return to reduce their pollution’. It follows, therefore, that, if Sweden had chosen to give operating, as well as investment, aid to ships subject to its environmentally-differentiated shipping dues, it might not necessarily have met with Commission objections.

Investment aid, consistent with Article 87 of the Treaty, to permit Community ports or shipowners to adjust to higher ship emission standards appears to fall perfectly within Community guidelines, with the exception of aid below the de minimis level established in the Commission Notice of 1996 (at least to the extent that this is upheld by the Court: cf. Italy v Commission (1991)). Investment aid to
help ports or firms adapt to new mandatory standards on ships’ emissions or other new legal obligation, and involving adaptation of ships’ equipment to meet these can be authorised up to the level of 15% gross of the eligible costs: *State Aid for Environmental Protection*, section 3.2.3.A. Aid for investment that allows significantly higher levels than these new standards to be attained may be authorised up to the level of 30% gross of the eligible costs (and more for small or medium-sized enterprises): *ibid.*, section 3.2.3.B. It might be noted that Sweden’s 40% rebate on the fitting of SCR or equivalent technologies up to 2000 exceeds the latter figure (See Appendix 3, Section 1).

417. Operating aid for ports or vessels subject to an EC ship emissions regime is far less likely to be authorised. Non-discriminatory measures that do not exceed 100% of the extra environmental costs and are otherwise compatible with the Treaty, might, however, be authorised where they aim to encourage shipowners or operators to purchase ‘environmentally friendly’, i.e. low sulphur, bunker fuel: *ibid.*, section 3.5.

418. The Commission’s 1997 Green Paper on *Sea Ports and Maritime Infrastructure* rose from the need to ensure free and fair competition in the financing and charging of port and maritime infrastructure, a challenging task, since ‘practices vary significantly between and within Member States and the different levels of government and municipal involvement mean that it is often not clear whether the cost of investments in port and maritime infrastructure is, in practice, passed on to users through port charges’: Kinnock, 1998. It advocates, therefore, a three-stage plan for the coherent application of the EC State aid rules to future public-sector financing of port infrastructure developments, a question closely connected to the issue of port access charging, so that it also proposes a framework for port charging practices. The Paper also deals with the liberalisation of the port services market, discussed in Section 4.4.1 below. It should now be seen in the light of the White Paper on *Fair Payment for Infrastructure Use*, discussed above (at paragraphs A4/391-92), as the measures in question need to be taken in co-ordination with equivalent measures in other transport sectors. Following the Green Paper, the Commission prepared an inventory of the principal types of public port financing and of port charging in EC ports. Not only has this provided important information, but it has also illustrated that the debate within the Commission on what constitutes ‘State aid’ in the port sector is not yet over: Note in *IJSL* (1999), p. 155. The Green Paper does, however, suggest (at paragraph 15) that it is ‘financial support that benefits particular operators as distinct from others’. D-G Transport now intends, after further consultation, to combine legislation on port services with the follow-up from the inventory exercise and with recommendations on transparency of port accounts (through an amendment to Directive 80/723). This package-deal will be published in Spring 2000. It is not yet clear, however, whether or not State aid guidelines will be included in it. What is clear is that the Commission wishes to develop a framework on charging for the use of port infrastructure within all port areas (other than those located in Cohesion States) ‘which might otherwise distort competition between ports but which cannot be examined under the current state aid regime if all users are allowed access to the port on non-discriminatory terms’: Note in *IJSL* (1999), p. 157. The short-term result of this is likely to be limited to a directive ‘which, while designed with enough flexibility to accommodate their structural, operational, and legal differences, would nonetheless establish mandatory minimum criteria for the basis on which (at least initially) major European ports would draw up their charging structures’: *ibid.* This is clearly of direct relevance to any EC directive requiring environmental differentiation of shipping dues. Of eventual significance too is the
Commission’s long-term objective ‘to eliminate distortions of competition by requiring ports to recover the capital, operating and external [including environmental] costs of using the infrastructure through port charges, provided that this principle is applied to competing modes of transport [as to which see paragraphs A4/391-92 above]’ (emphasis added): ibid. There is no great leap between reflecting in port dues the environmental costs of using port infrastructure and the environmental costs of acidifying ships’ emissions. It is desirable that the Environment, Transport and Competition DGs in particular co-ordinate their policies in this regard.

A4: 4.2.4 Conclusions

419. In our opinion the Community has internal competence to adopt measures requiring Member States to control the sulphur content of bunker fuels or to limit emissions through regulation. It also has competence to mandate the establishment of an EC-wide system of environmentally-differentiated shipping dues. It should, in our opinion, act under Article 175 (and in the latter case possibly under Article 93 too) by way of a directive. It should also pay particular regard to the consequences of the subsidiarity and proportionality principles, especially in terms of deciding the appropriate level of environmental protection that the Community instrument should aim for, given the possibility of higher national standards, and should seek precision in describing that level. Finally, it should bear in mind the complex rules and practice surrounding EC and State aids, taxes and charges, and should be aware of the possible incentive to co-operate in a ship emissions regime that the prospect of Cohesion Fund aid presents.

A4: 4.3 External Competence

420. The EC actively participates in the work of several of the global and regional international institutions and conventions discussed above: the Barcelona Convention system; HELCOM; the International North Sea Conferences; the LOSC; the UNECE; and the WTO. The same is true of the Paris MoU on Port State Control. In the IMO, however, it has only Observer status. Member States are jealous of their independence of action there. On the other hand, the Commission’s Communication on a Common Policy on Safe Seas has been suggested as an expression of ambition to replace individual State action with co-ordinated Community action (see, for example, Nollkaemper, 1997, p. 166; this is notwithstanding a Council resolution approving the Communication, and the emphasis placed in relevant EC legislation on implementing global, IMO standards into EC law).

421. There is no doubt that the Community has competence under EC law to pursue an external policy on ships’ emissions. Article 174(4) (ex 130r(4)) expressly recognises an external competence in regard to environmental policy. Unfortunately, to the extent that it must be relied upon (see paragraph A4/308 above), Article 80(2) (ex 84(2)), does not, but there is ample case law to suggest that the Community has in any event implied external powers: see, for example, ERTA, Opinion 2/91 and ILO Convention 170.

422. There is also no doubt that the Community will accept that its competence is broadly mixed in the area of prevention, reduction and control of ship emissions. In its Declaration made pursuant to Article 5(1) of Annex IX to the LOSC Convention, for example, the Community declared that it shares competence with its Member States as follows:
[With regard to] provisions on maritime transport, safety of shipping and the prevention of marine pollution contained inter alia in Parts II, III, V, VII and XII of the Convention, the Community has exclusive competence only to the extent that such provisions of the Convention or legal instruments adopted in implementation thereof affect common rules established by the Community. When Community rules exist but are not affected, in particular in cases of Community provisions establishing only minimum standards, the Member States have competence, without prejudice to the competence of the Community to act in this field. Otherwise competence rests with the Members States.

This would appear to be the case too in relation to GATS aspects of a system of environmentally-differentiated shipping dues: see Opinion 1/94, discussed above at paragraph A4/283.

423. ‘But whether and when the EC has sole authority to act and member states have to refrain from acting; and what exactly are member states’ obligations when the Community does not have sole authority, are questions that continue to bewilder practitioners and scholars’: Nollkaemper, 1997, p. 167. Like the subsidiarity principle, the issue exemplifies the tension between the impetus towards further integration and the countervailing ‘centrifugal tendencies of Member States’: Bourgeois, 1995, p. 786. In this case, however, the result is not unjusticiable norms, but a veritable Gordian knot of uncertain and conflicting jurisprudence. ‘It is difficult to identify a linear evolution in the way the ECJ has struck the balance between these [conflicting] interests. Its judgements appear to be highly contextual and case-specific, and it is uncertain whether the principles [of pre-emption, necessity, proportionality and cooperation] developed by the ECJ would also be applied in other cases, like the allocation of powers with regard to the law of marine environmental protection’: Nollkaemper, 1998, pp. 185-86. The ECJ’s application of the above-mentioned principles to various texts has ‘mainly serve[d] to protect the external role of member states, rather than that of the Community: ibid., p. 186. The nearest case to the present issue is Peralta, which is only authority for the proposition that nothing in present EC law prevents a Member State enacting laws that go beyond MARPOL standards, including laws that involve reverse discrimination against its own nationals. (It is only to be wondered whether this will continue to be the case if the Community assumes competence in the field by adopting a directive on ships’ emissions.)

424. The bottom line appears that Community powers in this field will not become exclusive unless internal powers have been exercised in a way that occupies the field (sic). Whether exercise of internal powers actually leads to exclusiveness needs to be analysed on close reading of the texts’: Nollkaemper, 1998, loc. cit. The question whether the Community is permitted to adopt higher air pollution standards than MARPOL Annex VI standards seems to depend on whether the latter are maximum or minimum standards and whether they are addressed to flag, port or coastal States. As is apparent from Section 2.2 above, determining this in respect of ship-source air pollution is not always easy. Where a standard is, as appears to be the case of most of them, relevant to flag, port and coastal States alike, competence must be regarded as mixed: Nollkaemper and Hey, 1995, p. 291. It is therefore, almost impossible to predict in advance what the result of an EC directive on ships’ emissions would be.

425. While in general EC legislation in pursuance of A Common Policy on Safe Seas has merely accelerated the implementation, at a regional level, of globally agreed (IMO) safety and environmental protection standards, according to Nollkaemper and Hey (1995: and see paragraphs A4/119 above), where necessary they have gone beyond this and added higher regional standards, enforceable through PSC:
cf. also Molenaar, 1998, p. 159, note 93. If this is so, it can only be seen to a significant extent in the various EC measures imposing higher regional standards on passenger ships calling at EC ports; in their case, however, it can rely (as, indeed does the IMO-endorsed Stockholm Agreement) entirely on port State jurisdiction, rather than any external action: see also paragraph A4/118 above. It might be argued that it is also seen in the amended Proposal (COM(1998) 452 final) for a directive requiring the discharge of ships’ waste to shore-based reception facilities, but this does not, strictly speaking conflict with MARPOL, especially as MARPOL itself assumes that discharge will take place on shore: see further BMT and Plant, Chapter 3, esp. paragraph 3.1.1). The Member States have clearly not been concerned that any of these instruments raise any significant issues about external competence. It might be otherwise, however, with a directive which clearly goes beyond IMO standards established in MARPOL Annex VI. We are not suggesting that this will necessarily result in their opposing the measure, given the environmental concerns in particular of Northern Member States, although the issue might be invoked by opponents of strong Community measures. We do suggest, however, that it is a strong reason for early invocation of a Member States government experts’ group and for overt adherence by the Commission to the principle of minimum harmonisation. This would send the message that the Commission is not seeking to extend the Community’s competence as it were ‘through the back door’, nor to displace Member States’ autonomy in the IMO, and that it accepts that the matter is one of mixed competence, requiring a partnership approach.

A4: 4.4 EC Competition and Public Procurement Law

426. A 1994 WTO questionnaire on maritime transport services was answered by 36 States and the EC: WTO doc. S/NGMTS/W/2, 21 October 1994. The answers show, inter alia, that many countries have adopted the principle of the ‘landlord harbour’, where part of the port’s operations is put in the hands of private operators, which are sometimes foreign-owned.

427. The same logic of restructuring and reform through privatisation and liberalisation is at work for harbour services as for maritime transport services. Many international financial institutions, like the IBRD, try to favour ‘landlord ports’ (such as Rotterdam, where port authorities limit their role to the building and owning of infrastructure, leaving superstructure, pilotage, cargo operations and towage to be conducted by private operators) or ‘intermediate ports’ (like Antwerp, which provides the superstructure as well as the infrastructure, but not the labour) over ‘service ports’ (where all operations are integrated and conducted by the port authority itself). The Commission’s 1997 Green Paper on Sea Ports and Maritime Infrastructure, on the other hand, adopts a neutral policy towards ownership and organisation, but tries to ensure that subsidies granted to infrastructures and ‘tariffication’ do not distort competition between harbours and between their users. The manner in which commercial ports organise themselves is, nevertheless, of relevance to the applicability of the Community’s competition and public procurement policies to the operation of a system of environmentally-differentiated dues.

A4: 4.4.1 Competition Law

428. Measures taken in port or with regard to ships under an EC ship emissions regime must be framed so as not to infringe EC competition policy. If, for example, the Commission were to follow the economic instruments route, and a Member State authority were to place the provision of the port dues service in the hands of restricted categories of service providers, it is likely that that policy would be
infringed if the services were considered as services offered on the market as economic activities of a commercial or industrial nature. In our opinion, however, they would be more likely to be understood to be services conducted in the exercise of official authority, and for a public purpose, and so exempt from EC competition rules, as was the 24-hour anti-pollution service considered in Porto di Genova (1997). This case has potentially far-reaching implications for any measures aimed at protecting the environment. It might, for example, serve to exempt from the competition rules environmental agreements between Member State governments (or even the Community) and the shipping industry to reduce acidifying ship emissions, which is an alternative market-based approach to environmentally-differentiated shipping dues: cf. Chalmers, 1997, p. 512.

429. Porto di Genova (1998) is also of potential significance. It is authority that a Member State is entitled to confer on undertakings established in it an exclusive right to provide a mooring service which requires it to be used at a price which, in addition to the actual cost of the service provided, includes a supplement to cover the cost of maintaining a universal mooring service. This is perhaps persuasive authority that EC-mandated environmentally-differentiated dues may be set at levels that cover the cost of operating the system, although many shipowners might be quick to point out that this is a ‘service’ they do not necessarily want. GT Link AS v De Danske Statsbaner, on the other hand, is likely, if anything, to have a restraining effect. It held that ‘a public undertaking which is the owner of a commercial port and on that basis has the sole right to levy the users’ fees in that port is thereby placed in a dominant position[, and it is an abuse of this] contrary to Article 86. for it to levy unreasonable fees (compared to the value of the services rendered)’. This might be taken to suggest that ‘service ports’ at least are not entitled to charge shipping dues other than those reasonably reflecting the cost of providing in-port and at sea infrastructure and services. As its concern is with competition, however, it is better seen as consistent with the environmental differentiation of port dues, as long as they remain reasonable, non-discriminatory and not otherwise unreasonably distortive of competition.

430. In our opinion, therefore, the competition provisions of the EC treaty are unlikely to be infringed: see for fuller discussion, BMT and Plant, paragraphs 4.2.11-12; Green Paper on Sea Ports and Maritime Infrastructure, discussed above at paragraph A4/418. D-G Environment would, moreover, be wise to liaise with D-G Competition on these matters.

A4: 4.4.2 Public Procurement Policy

431. In addition, the tendering processes of public authorities or undertakings (or of other bodies operating under special exclusive rights granted by a Member State competent authority) which are aimed at placing the provision of an environmentally-differentiated port dues service in the hands a competent service provider would potentially fall within the ambit of EC public procurement policy. It is never easy to determine precisely which of the four main public procurement directives (93/36 or 93/37 or 92/50 - all as amended by 97/52 - or 93/38) applies to any given situation, and D-G Environment would be well-advised to liaise with D-G Internal Market on this matter.

432. It appears to us most likely that Directive 93/38 (Coordinating the Procurement Procedures of Entities Operating in the Water, Energy, Transport and Telecommunications Sectors) will apply, at least in respect of tenders put out by the public bodies in the maritime field listed in Annex IX to the Directive. Its terms
extend to public contracts covering: ‘The exploitation of a geographical area for the purpose of... (ii) the provision of... maritime port.. facilities to carriers.. by sea’ (Article 2(2)(b)). In such cases, Member States will have to ensure that their laws and administrative procedures permit the Directive to be properly applied: Directive 92/13. Port entities falling outside the terms of this Directive and putting out to tender such a port dues service might, nevertheless, be caught by one or more of the other directives. The Commission has made it clear, however, in its 1996 Green Paper and its 1998 Communication on Public Procurement, that Community rules on public procurement leave significant scope for public authorities to promote environmental protection. ‘The possibilities offered by the existing regime will be developed and clarified in a specific interpretative document in order to enable the optimum consideration of environmental protection in public procurement’: Communication on Single Market and Environment, paragraph 24.

A4: 5 The National Laws Baseline

433. It is trite law that the Member States cannot pray in aid the inadequate state of their national law or practical difficulties as excuses for not complying with their international obligations or with EC law. It follows that it is not strictly necessary to conduct a survey of EC/EEA Member State laws or port structures and practices to discover, for example, whether they are more conducive to a regulatory or an economic instruments approach to ships’ emissions. It is, however, helpful to note, as we have above, that they have all had at least some experience of the use of economic instruments, in some cases in instances of potentially direct significance for ships’ acidifying emissions. It is also helpful to note Member States’ claims, legislation and attitudes towards marine environmental protection. This is for two reasons: (i) they are relevant to the issue of the degree to which State practice should influence the Commission’s view of the applicable (global) international law of the sea (discussed above in Section 2.2.5.2); and (ii) they are indicative of the furthest that individual Member States are likely to be prepared to go or, conversely, of the lengths to which they might be prepared to ‘push the limits’ of that law, either erga omnes or inter se.

434. While, for example, several EC/EEA coastal States have marine pollution legislation prescribing standards for foreign ships in their internal waters (or ports), territorial seas and, in some cases, jurisdictional waters, fewer provide for at-sea enforcement, and most exhibit a strong preference for in-port enforcement. The UK’s 1996 Pollution Regulations, for example, do not provide for enforcement at sea (see also paragraph A4/112 above). Where in-port enforcement measures are likely, as we argue they are, to be adequate, the Commission might well follow this approach.

435. No Member State marine pollution legislation applying to the territorial sea or EEZ to date appears to specifically address ship-source air pollution, but much of it is general enough to cover, or be easily extended to, emissions as well as discharges. A brief outline is given below, with emphasis on the several States that appear to have claimed broad powers. It should be recalled that North Sea States committed themselves, by the 1992 Paris Declaration, to increase their port and coastal State jurisdiction to the maximum extent permitted by international law. Noteworthy is that a number of Member States have, as they are entitled to do, imposed national discharge standards higher than MARPOL standards in their territorial seas, and that a few have taken powers also to control (contrary to the LOSC) CDEM matters. Also noteworthy is the general effort, with few exceptions, to follow the LOSC quite closely, except for several cases of neglect to draw the distinction made in the LOSC between enforcement powers in the territorial sea.
and those in the EEZ. It is telling that even sophisticated European States have found the fine distinctions in the LOSC perhaps too complex to bother with.

- By Royal Decree of 1981, Belgium imposed a zero-discharge requirement in its territorial sea. Belgian authorities may conduct inspection at sea to verify if any discharges have taken place. The 1999 Law follows the LOSC quite closely.
- The 1993 Danish Act on the Protection of the Marine Environment imposes a zero-discharge requirement in the Danish territorial sea and prescribes MARPOL discharge standards in the EEZ. Notwithstanding that Denmark is not a Party to the LOSC, its (complex) enforcement provisions (Parts 13 and 14 of the Act) follow that Convention fairly closely in relation to the EEZ: see Molenaar, 1998, pp. 393-94. The Act does not refer specifically to violations in the territorial sea as such, but rather to violations of the Act (ibid., p. 258), but the relevant enforcement provisions do not appear to go beyond what is permitted there. The Minister for Environment and Energy is empowered, moreover, to issue regulations regarding ship-source air pollution, in pursuance of Section 6 of the 1997 Consolidated Environmental Protection Act.
- Section 4 of Finland's 1979 Act permits national CDEM standards to be imposed on foreign vessels in the Finnish territorial sea. Molenaar (1998, p. 423; also 333) suggests that this might be justified, at least during ice conditions, by way of analogy with Article 234 LOSC, but this is unconvincing. Chapter 2, Section 10 of the Act imposes a zero-discharge requirement in the same waters.
- Articles 1, 2 and 4-6 of France’s 1994 Law establishes a range of enforcement measures in the EEZ going well beyond what is permitted under Article 220 LOSC, but, as the provision extends to other matters than ship-source pollution, it is difficult to determine, without further clarification or application of those provisions, to what degree they infringe the LOSC. France applies its law irrespective of the ship's flag: as to this, see paragraph A4/113 above.
- Article 11 of the 1995 Law, Article 4 of the 1981 Law and Sections 324, 330 and 330(a) of the Penal Code do the same mutatis mutandis in the German EEZ. Germany is, moreover, one of those States that does not distinguish between enforcement powers in the territorial sea and those in the EEZ.
- The Greek Law of 1977 imposed a zero-discharge requirement in its territorial sea with respect to substances ‘that may cause pollution of the sea’. One might presume that the Greek Government considers this to apply in most of the Aegean straits (see paragraph A4/56 above).
- By Article 16 of its 1982 Law, Italy imposed a zero-discharge requirement in its territorial sea. As to Italy's broad exercises of jurisdiction in the Straits of Messina, see Plant, 1992, p. 262.
- The Netherlands does not prescribe or enforce any CDEM standards in its territorial sea and permits only boarding and inspection (but not apparently detention) there ‘in so far as this may reasonably be deemed necessary for the performance of their duties’: Article 15 1983 Act. As to the likely extension of very similar provision to a new EEZ in a few months’ time, and the close parallels with the new Belgian legislation, see Molenaar, 1998, p. 395. The Netherlands applies its law irrespective of the ship’s flag: as to this, see paragraph A4/113 above.
- In respect of its EEZ, Spain claims (in Article 1(2)(c) of its 1978 Act) to have ‘exclusive jurisdiction to enforce all relevant measures (emphasis added)’, including, one assumes, its applicable ship pollution laws. This claim to exclusivity appears to disregard such safeguards as Article 228 LOSC, under which the flag State may exercise jurisdiction in lieu of the port State acting under Article 218. More significantly, Article 112 of its 1992 Act establishes a range of enforcement measures in the EEZ going well beyond what is permitted under Article 220 LOSC. Spain is also one of those States that does not distinguish between enforcement in the territorial sea and enforcement in the EEZ. Spain also claims broad powers to control tankers present in its EEZ, and to require them to depart if they fail to comply: Article 6 of its 1991 Order. Its claim to broad enforcement powers in respect of vessel-source pollution in straits used for international navigation is discussed above, at paragraphs A4/101-02.
- Portugal’s 1977 Act is broadly phrased, but appears broadly to follow international law.
The 1980 Swedish Act imposes a zero-discharge requirement in the territorial sea (Chapter 2, Section 2). It also provides that the Government ‘may prescribe such limitations or prohibitions of traffic in the waters of the Swedish territorial sea or economic zone that are required for the prevention of water pollution’ (Chapter 7, Section 1). In addition, vessels which are so poorly maintained that their construction and equipment do not meet Swedish standards may not navigate in its EEZ: *ibid.*, Chapter 4, Section 2(2). These powers, if exercised beyond a certain point would appear to conflict with international law, notwithstanding that Section 10 of the Act emphasises that neither the Act nor Ordinances and Decrees made under it shall restrict rights under international law, and that the Act follows the LOSC closely on enforcement (Chapter 6, Section 2(a); Chapter 7, Section 10; and Chapter 8, Section 6). They appear, in particular, to envisage the prescription of CDEM standards going beyond GAIRAS in both the territorial sea (including the Åhvenanrauma Strait: see Molenaar, 1998, p. 333) and the EEZ. Molenaar (*ibid.*, p. 424) suggests that this might be justified, at least during ice conditions, by way of analogy with Article 234 LOSC, but this is unconvincing.

Finally, the UK Act of 1995 follows quite closely the LOSC (as to a minor exception, see Molenaar, *ibid.*, p. 333), but does not claim at-sea enforcement powers.

In addition, there are unlikely to be any national Constitutional restraints preventing legislation on ship source pollution that goes beyond MARPOL (or even LOSC) standards, except perhaps those that require national law to conform to public international law, as for example in the Irish and Dutch Constitutions. As to the difficulties surrounding tort claims, see paragraph A4/22 above.

**A4: 6 Compliance Aspects**

**A4: 6.1 The Regulatory Approach**

As far as a regulatory approach is concerned, the following points can be made:

A transnational system of law, backed up in the final resort by binding decisions of the European Court of Justice, is invariably likely to be more effective than an inter-governmental regime ultimately dependent for its impact upon peer pressure. At the same time, the Commission, in formulating an instrument, needs of course to bear in mind its own thinking on ‘planning for compliance’ at an early stage: see its Communication on *Implementing Community Environmental Law*.

Two enforcement issues arise: that of enforcement of SOxECA requirements; and that of enforcement of national emissions standards going beyond MARPOL Annex VI.

It is very difficult to see how SOxECA requirements can be effectively policed and enforced either in port or at sea, except in respect of ships that operate more or less exclusively within a single SOxECA, or two or more adjacent SOxECAs, or of ships that can be clearly demonstrated to operate only on low-sulphur (1.5%) fuel. Absent a sufficiently fail-safe global system of bunker delivery notes which (together with bunker receipts) constitute reliable evidence of the quantities and sulphur content of bunker fuel taken on board and/or of reliable ships’ logging of where and when change-over procedures between high- and low-sulphur fuels kept in different tanks take place, it will be nigh on impossible to determine via PSC, or even at-sea observation (see paragraph A4/69), whether or not a vessel is in compliance. The reality is that the global bunker delivery note system envisaged under MARPOL Annex VI has yet to be developed and put into operation (see paragraph 4/217 above), and that ships’ logs or record books cannot always be relied upon, even supposing they have been completed in timely fashion (in the Paris MoU’s 1996 PSC inspection campaign on the oil record books required to be
completed under MARPOL Annex I, for example, around 25% were found to have incomplete entries: PSCC30/04E, 15 April 1997). One legal device to ameliorate the latter problem is to require the correct completion of logs and record books as a condition of port entry and, indeed, to treat this as a continuing offence regardless of when and where the duty to complete them arises: cf. Article 2bis of Germany’s 1982 Law and relevant German case law. In view, moreover, of the difficulties of monitoring the emissions from a vessel, there are obvious advantages to encouraging the use of prime movers and exhaust gas treatment systems that are inherently capable of producing low emissions of SO2 (as well as NOx) and/or the use of exhaust gas monitoring systems that can provide a record of emissions. The EC cannot, however, mandate such CDEM standards for third flag vessels, except possibly as a condition of port entry.

441.Nothing in the analysis above suggests that Member States cannot simply apply their normal PSC procedures to emissions standards going beyond MARPOL Annex VI. Reliance on in-port enforcement would, however, suggest the need to further amend the PSC Directive to extend it to air pollution violations. In addition, regard should be had to the possibility of the extension of the new HELCOM system on harmonisation of fines for MARPOL breaches to air pollution violations and of emulating this within the Community. In addition, the North Sea Task Force was established, in 1992, to discuss, inter alia, the problem of improving deterrents against violations of MARPOL. By the Declaration of the Fourth International Conference on the Protection of the North Sea (Copenhagen, September 1995), moreover, North Sea Ministers agreed to take action to develop common reporting and enforcement procedures (paragraph 43 and Annex 3, paragraph 6.1). This could likewise be modified to cater for emissions.

442.Various technical matters would also arise. Three approaches are possible, for example, to determining the average sulphur content of marine bunker fuel for the purposes of an EC ship emissions regime: (i) monitoring the quantity and sulphur content of residual fuel output from oil refineries; (ii) data acquisition on the basis of bunker delivery notes and subsequent calculation of the sulphur content of the fuel recorded in them; and (iii) calculation on the basis of data collected by independent sampling and testing services. If the EC were to go beyond MARPOL standards and specify percentages other than 4.5 or 1.5, option (i) would present the difficulties that monitoring the output of EU refineries alone would not give an accurate picture of bunkers being used in EU waters and would not take into account the blending of bunker oils before delivery to ships. Option (ii) would involve a huge administrative burden, as the MEPC 38 and 39 debates suggested, would depend on the timely delivery of data by many parties and cannot operate on a global basis in any event until the provision of bunker delivery notes becomes standard practice, which is unlikely to occur at least before MARPOL Annex VI is in force. The development, under Dutch leadership, therefore, of the Sulphur Content Guidelines thus proceeded on the basis of option (iii). Any EC monitoring system should, it seems, do the same.

443. The IMO’s MEPC has, however, ‘agreed that the calculation of the average sulphur content should not be weighted for quantity and should only give a worldwide figure’ (MEPC 42/22, paragraph 9.30). It did not take up the Dutch suggestion (Annex to MEPC 42/9), that ‘it is possible... to calculate averages for single ports, countries or regions should this be desired as additional information (emphasis added)’. It also rejected the Dutch proposal to permit two alternative methods of calculation of average sulphur content, one weighted for quantity and one not so weighted. This is because measurements of quantity are often
unreliable, the independent sampling and testing services often relying upon third party statements.

444. It follows that the Commission, if it wishes to have reliable data on the average sulphur content of marine bunkers used in EU waters covered by the EC regime, will probably be obliged to develop an independent system. If it does so, it will be free to decide whether or not it will accept the alternative method of calculation weighted for quantity. If it does, option (ii) as described above might in future prove useful, when bunker delivery notes becomes standard practice globally (or if EC legislation requires their issuing), in permitting the calculation of quantities of bunkers, and incidentally the calculation of averages weighted for quantity.

445. On the other hand, finance for the trial run and the initial five-year monitoring period of the IMO-approved system was provided by five EC Member States (Denmark, Finland, the Netherlands, Sweden and the UK) and Norway, which suggests the possibility after all of their being persuaded to disaggregate the data for Europe to help meet the Commission’s needs, at least during this half decade.

446. Other aspects of the monitoring process to be considered are the quality and uniformity and the potential commercial sensitivity of much of the data collected by the independent sampling and testing services. The Guidelines suggest that the independent sampling and testing services should: (a) ‘preferably’ be members of the International Association of Classification Societies (IACS), which are in general accepted by the Commission as the societies of quality, and otherwise chosen by the MEPC on the basis of defined quality criteria (paragraph 7); and (b) each provide the data, which is to be treated as sensitive and confidential, ‘to the secretariat of the IMO or another agreed third party on the basis of a mutually agreed format, approved by MEPC’, as a guarantee of impartiality (paragraph 8). The Commission would need to determine whether or not it was content to rely on the same sampling and testing services and would need to designate an independent European body to conduct the analysis.

**A4: 6.2 Environmentally-differentiated Shipping Dues**

447. Economic instruments applied to ships’ emissions will not raise enforcement issues as such, nor indeed issues of compliance with any set standard. Rather they will exhort and encourage, through manipulation of the price mechanism, observance of best, or at least better, practice by the owners or operators of ships calling at EU ports. By definition, this will not obtain the same uptake by all operators. Thus, for example, there will be less uptake from a differentiated fee based on a 1.0% fuel sulphur content than from a regulation set at that level. Any necessary measures of verification and enforcement ancillary to a dues system, moreover, such as of reporting, inspection and certification requirements, present no difficulties, given the port/coastal States’ broad territorial jurisdiction. In our opinion, it would be difficult to improve upon relevant aspects of the Swedish system described in Appendix 3, and the Commission might well wish to use this as a model.

448. In relation to stakeholders’ willingness to co-operate in implementing economic instruments, while, for example, oil companies generally have long experience of acting as tax-collectors for government and sophisticated accounting infrastructures, port authorities in general do not. This suggests that a ‘green’ fuel charge on bunkers taken on in European ports might be a more easily enforceable measure than a system of environmentally-differentiated dues levied in ports. Port authorities, which already feel themselves under heavy legislative and
environmental pressures, will be reluctant, if asked, to take on the role of ‘tax collector (or charge administrator)’ for government. If environmentally-differentiated charges were to be imposed, without any revenue going to the national treasury, the objection that the new role would be unduly onerous would appear to be to some degree empty, as the extra administration involved is essentially that of adjusting the rate of dues payable by each ship, in a revenue-neutral manner, albeit in accordance with quite complex environmental rather than simple tonnage and/or cargo criteria. If, on the other hand, the chosen instruments were to be taxes the revenue of which was paid to the national treasury, their resistance would be more understandable. There is, it is true, an increasing interplay between environmental regulators seeking to involve a broad range of actors on the one hand and industrial pressures affecting the structure of EC environmental regulation on the other. Even quasi-legislative tasks are increasingly being delegated to industry by EC legislation, for example under the Packaging Waste Directive and through frequent references to European standards bodies (Chalmers, 1999, p. 681), and industry and businesses already carry a heavy burden of accounting for EC-sanctioned tax, in the form of quarterly VAT returns. Ports should be no more exempt from these burdens than any other undertaking. On the other hand, it seems fair that the extra administrative burden should fall on the potential polluter, and not an innocent third party. Ideally, of course, it would indeed fall on the ship owner or operator, but it is very difficult to envisage how an environmental tax or charge might be imposed on or self-administered by a global industry in such a way as to reduce acidifying emissions in Europe. In these circumstances, resort to a working system (port and fairway dues) already in place that ‘captures’ the vast majority of the potential polluters is entirely understandable. It follows, however, that it would, at the very least, be reasonable to permit port authorities to recover their administrative costs, and nothing in EC law prevents this (but cf. paragraph 4/429 above). In addition, ports should not have to subsidise the system: see ESPO Position Statement, 1999.

449. In relation to industry/public acceptance of environmentally-differentiated dues generally, moreover, making them revenue-neutral rather than revenue-raising would appear to recommend itself. Indeed, Andersen’s comparative study (1996) of the effluent charges of three Member States tends to support the view that the better economic instruments involve modest charges, earmarking of the revenue from them for those aspects of the industry that are most polluting and where pollution control could be most effective and efficient; and good co-ordination between the public authorities and agencies and the industry.

A4: 6.3 Finding Ways to Accommodate Major Stakeholders’ Views

450. Whichever approach is adopted, it remains that, while the major constraints on an EC ship emissions regime appear to be political rather than legal, the need to accommodate as far as possible the interests of all main stakeholders is crucial to the proper working of the relevant (and indeed of any) instrument. The international community interest in harmonised global standards for shipping means that the shipping, while content to accept higher global standards, on SO2 at least, will seek to oppose far-reaching regional measures that depart from the global standard. It will also be aware that investment in NOx abatement technologies will not be cost-effective if the majority of the ship’s emissions take place in areas where they cause little harm (through acidification, low-level ozone formation, etc.) and/or where the ship has only a short remaining operative life. Listening to the views of ECSA, the ICS and other shipping bodies at an early date thus recommends itself. Similarly, as just suggested, ports, which see themselves primarily as providers of commercial services in stiff competition one with the
other, will be unwilling to see their role as environmental guardians extended, at least without adequate consultation (through ESPO). The same goes for other stakeholders.

451. By far the most important stakeholder to bear in mind is the oil industry, which, with the prospect of the partial or total elimination of the use of high-sulphur fuels as ship bunkers through European action, stands to lose a lucrative outlet for what is otherwise a residual product with limited economic value, with no guarantee that this will find an alternative terrestrial market. It has been explained above (at paragraph 4/223) that, in alliance with a number of States (whose interests should also be taken into account by the Commission) it effectively fought off IMO’s early high target and reduced the SO2 standards in MARPOL Annex VI to an unsatisfactory level. Oil refiners already claim to feel hard hit by the rest of the EC Acidification Strategy, which will require refinery reconfigurations or closures in several Member States, notably Belgium, France, Portugal, Spain and the UK, where fluid catalytic-cracking refining appear to face particular difficulties: ENDS Report 266, p. 40. In addition, UK (and Norwegian) refineries, ironically, already produce large quantities of low-sulphur fuel, because of the ready availability of sweet North Sea crudes, but at present most of this is exported (ibid.); EC ship emissions legislation might significantly affect this market, to the disadvantage of these two countries’ oil export markets. Finally, the newsletters and pronouncements on various aspects of the Strategy of CONCAWE and EUROPIA, the main oil industry bodies of relevance, are very critical: see, for example, ‘Acidification Strategy’ in EUROPIA’s 1997 Report, and CONCAWE News, October 1998, pp. 7-10.

A4: 6.4 Non-Convention Craft and Small Marine Engines

452. Finally, the Study would be incomplete without some reference to the impact of small, ‘non-Convention’, vessels (excluding those engaged in inland transport) and marine engines falling below the minimum size thresholds in MARPOL Annex VI. By definition, these will never be bound by MARPOL Annex VI, nor are small craft likely to be subject to significant, if any, shipping dues. Included in this category are many private recreational vessels operating small out- or in-board motors. Individually they present only a small pollution threat, but in certain areas they might collectively warrant anti-emissions programmes, such as California Measure M13. There is nothing to prevent EC ship emissions legislation including them, but their size might not warrant the effort in comparison with the additional legal and administrative burden.

A4: 7 ‘Cold Ironing’: Mandatory Use of Energy/Combination Box Systems In Port

453. There would appear to be no legal obstacle to prevent a port State requiring vessels in its ports to use, at reasonable cost, instead of its own generators, less-polluting shore-based sources of energy (probably through a modified version of the sunken airport ‘combination box’, from which all essential exchanges are piped or wired to aircraft). This was a feature of the US EPA FIP proposal discussed in Section 6 of Annex 3.
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