

# CARRIAGE OF HAZARDOUS CARGOES BY SEA—THE HNS CONVENTION

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## I. INTRODUCTION

In April 1947 the freighter *Grandcamp* caught fire and exploded while being loaded with ammonium nitrate in the port of Texas City. A total of 468 people were killed, and the accident also caused considerable material damage.<sup>1</sup> Since then many accidents and incidents involving hazardous cargoes have occurred—albeit not so severe as the Texas City disaster.<sup>2</sup> However, the volume of hazardous and noxious cargoes (other than oil) carried by sea seems to be increasing constantly,<sup>3</sup> and along with it the risk for serious accidents.

An International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea [HNS] was adopted on May 3, 1996, at the end of a diplomatic conference held at the headquarters of the International Maritime Organiza-

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<sup>1</sup> See *The Safe Transport of Dangerous, Hazardous and Harmful Cargoes by Sea*, 25 EUR. TRANSP. L. 779 (1990).

<sup>2</sup> Large quantities of substances other than oil (both packaged and in bulk) are regularly washed up on European coasts. A relatively high proportion of shipping accidents also in the North Sea have involved ships carrying dangerous chemical substances. See EUROPEAN PARLIAMENT: REPORT ON THE ENVIRONMENTAL DAMAGE CAUSED BY OIL SPILLS FROM SHIPS: EUROPE ENVIRONMENT, DOCUMENT SUPPLEMENT TO EUROPE ENVIRONMENT 5 (No. 396-20 October 1992).

<sup>3</sup> In 1991 it was estimated that hazardous cargoes represent 10-15% of the volume of total seaborne trade. See O. Grapow, *HNS—the Case for Shared Liability*, 313 FAIRPLAY (No. 5619) 30, 32 (July 11, 1991).

tion (IMO).<sup>4</sup> The HNS Convention was adopted by consensus, which was regarded as consolidating the IMO's role as a developer of international maritime legislation, especially after 1984, when a diplomatic conference failed to reach agreement on an earlier draft convention elaborated by the IMO. A second failure could well have led to the introduction of regional legislation in this field (e.g., within the EU), which would have been detrimental not only to the shipping industry engaged in the international carriage of hazardous cargo, but also to efforts to harmonize maritime law on a global basis.<sup>5</sup>

The HNS Convention was thus needed to establish an international system for solving problems of compensation linked with the carriage of hazardous and noxious substances. The present rules on compensation do not provide enough safeguards for the interests of claimants in view of the huge damage that may be caused in connection with the carriage of hazardous cargo.

With the exception of the conventions governing oil pollution liability<sup>6</sup> and nuclear liability,<sup>7</sup> internationally accepted rules concerning shipowner's liability for damage caused in connection with carriage of hazardous substances have so far been lacking. Liability has been based on national

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<sup>4</sup> See Final Act of the International Conference on Hazardous and Noxious Substances and Limitation of Liability, May 2, 1996, 35 I.L.M. 1406. The conference was attended by delegates from 73 countries and representatives of inter-governmental and non-governmental organizations. See 3 IMO NEWS 8 (1996).

<sup>5</sup> See also *id.* at 9.

<sup>6</sup> The International Convention on Civil Liability for Oil Pollution Damage, November 29, 1969, 9 I.L.M. 45 (1970), MARINE ENVIRONMENT LAW at 4.501 (amended by Protocols of 1992) [hereinafter Civil Liability Convention]; International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, December 18, 1971, 1110 U.N.T.S. 57, 11 I.L.M. 284 (1972), MARINE ENVIRONMENT LAW at 4.503 (amended by Protocols of 1992) [hereinafter Fund Convention].

<sup>7</sup> Liability questions in the field of carriage of nuclear substances are regulated in the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy (revised by the 1964 Additional Protocol; see the 1963 Vienna Convention on Civil Liability for Nuclear Damage, together with the 1963 Convention Supplementary to the Paris Convention of 1960 and the 1971 Convention Relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material. The Standing Committee has been considering different ways in which the regime established by the Vienna Convention (1963) might be improved. In addition, effort has been focussed on the development of a convention on supplementary funding (SFC). The work resulted in a Diplomatic Conference which adopted on 12 September 1997 two instruments, i.e., the Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage (Document NL/DC/6.Add.1), and the Convention on Supplementary Compensation for Nuclear Damage (Document NL/DC/6.Add.2).

rules—often general rules of tort law. Many countries apply a rule of liability for fault,<sup>8</sup> which implies that the claimant has to prove that there has been fault on the part of the shipowner. If, on the other hand, strict liability is applied, the claimant's burden of proof is eased since strict liability also covers unproven fault.<sup>9</sup> Consequently, the rule on strict liability adopted in the HNS Convention strengthens the position of the claimant.

The rules on limitation of liability in the existing conventions, that is, the conventions of 1924, 1957 and 1976,<sup>10</sup> are also to the disadvantage of claimants. In the event of a serious accident involving hazardous substances, the limits of liability may have the result that the claimants do not receive adequate compensation. Thus, it was desirable to achieve internationally unified liability rules in this field. Because HNS accidents often have international dimensions, nationally and regionally differing rules and principles work to the disadvantage of all persons involved: the shipowner, the claimant, the insurer, etc.

It remains to be seen whether the solution achieved is considered acceptable to such a number of states that one can talk about "internationally uniform rules".<sup>11</sup> With this issue in mind, I will comment below on the HNS Convention.

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<sup>8</sup> See, e.g., FINNISH MARITIME CODE (FMC) ch. 7, sec. 1.

<sup>9</sup> See also Peter Wetterstein, *Damage from International Disasters in the Light of Tort and Insurance Law* (general report submitted to Association Internationale du Droit des Assurances (AIDA)) 8TH WORLD CONGRESS ON INSURANCE LAW IN COPENHAGEN, 18-22 JUNE 1990, at 53-62.

<sup>10</sup> See International Convention for the Unification of Certain Rules relating to the Limitation of the Liability of Owners of Seagoing Vessels, Aug. 25, 1924; International Convention Relating to the Limitation of the Liability of Owners of Sea-Going Ships, *Going Ships*, 1957 A.M.C. 972, 1968 U.K.T.S. No. 52 (Cmd. 3678). International Convention on Limitation of Liability for Maritime Claims, Nov. 19, 1976, reprinted in 6 Benedict on Admiralty Doc. No. 5-4 (7th ed. 1986); see also PATRICK GRIGGS & RICHARD WILLIAMS, *LIMITATION OF LIABILITY FOR MARITIME CLAIMS* 7-84 (1991) (commenting on Convention on Limitation of Liability for Maritime Claims).

<sup>11</sup> The HNS Convention was opened for signature on October 1, 1996, and will remain open for signature for 1 year until September 30, 1997. Only the United Kingdom had signed the Convention as of March 1997. The entry into force conditions of the HNS Convention are written into Art. 46: "This Convention shall enter into force eighteen months after the date on which the following conditions are fulfilled: (a) at least twelve States, including four States each with not less than 2 million units of gross tonnage, have expressed their consent to be bound by it, and (b) the Secretary-General has received information in accordance with article 43 that those persons in such States who would be liable to contribute pursuant to article 18, paragraphs 1(a) and (c) have received during the preceding calendar year a total quantity of at least 40 million tonnes of cargo contributing to the general account". 35 I.L.M. 1406, 1428 (1996).

## II. MAIN CONTENTS OF THE HNS CONVENTION

The HNS Convention governs liability for damage in connection with the carriage of hazardous and noxious substances by sea. The substances covered are defined by reference to existing lists of hazardous substances in IMO conventions and codes (Art. 1.5). As these lists and codes are amended, the HNS Convention will be tacitly amended as well. The geographical application of the HNS Convention is laid down in Art. 3,<sup>12</sup> and "damage" is defined in Art. 1.6. The HNS Convention defines damage as including loss of life or personal injury, loss of or damage to property outside the ship carrying HNS substances, loss or damage by contamination of the environment, and the costs of preventive measures as well as further loss or damage caused by them. The Convention *does not* apply to claims arising out of any contract for the carriage of goods and passengers, to pollution damage as defined in the Civil Liability Convention, 1969 (as amended)<sup>13</sup> or to damage caused by radioactive materials of class 7 (Art. 4).

The HNS Convention strengthens the position of the claimants in several important ways. The Convention introduces strict liability for the shipowner (Art. 7), higher limits of liability than the present general limitation regimes (Art. 9), and a system of compulsory insurance (or other financial security) and insurance certificates (Art. 12). If the damage exceeds the shipowner's limitation amounts (min. 10 million SDRs, max. 100 million SDRs (Special Drawing Rights)), the owner/insurer is financially incapable of meeting the obligations under the HNS Convention, or no liability for the damage arises for the shipowner, the claimant may get compensation from the International Hazardous and Noxious Substances Fund [HNS Fund]. Compensation will be paid from the HNS Fund up to a maximum of 250 million SDRs, including compensation paid by the shipowner/insurer (Art. 14).

Contributions to the Fund are levied on persons (primarily chemical companies) in the Contracting States who receive a certain minimum quantity of HNS cargo during a calendar year. This obligation is based on a "post-event contribution system", that is, the amount of the contribution is determined primarily by the claims submitted to the HNS Fund the preceding

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<sup>12</sup> See *infra* note 54.

<sup>13</sup> It is to be noted, that oil transports not governed by the CLC-system, i.e., nonpersistent oils, fall under the HNS Convention. Furthermore, the former system does not cover damage caused by fire or explosion.

year and by the volume of HNS cargo the receiver imported during that year (Articles 16-19). The administration of the HNS Fund is handled by an Assembly consisting of all Contracting States, which will normally meet once a year, and a Secretariat headed by a Director (Art. 24).

The compensation system under the HNS Convention thus resembles the international oil pollution compensation conventions (as amended),<sup>14</sup> which provide a consistent and proficient international regime for compensating injured parties for oil pollution damage. It is to be noted that the system has functioned well. Compensation has been paid relatively promptly—bearing in mind the frequently complex issues involved—and the claimants have in most cases received adequate compensation.<sup>15</sup> Similarly, the success of the HNS system will very much depend upon administrative simplicity, as well as the adequacy of compensation paid. It was important that a revision mechanism which makes possible rapid and simplified inflation and other adjustments was included in the HNS Convention (Art. 48).

Following is a more detailed study of the HNS Convention.

### III. NOTES ON THE HNS CONVENTION

#### A. Definitions

One desired aim, at least from the point of view of the Nordic countries, was that the HNS Convention would be given the broadest possible coverage. In this respect one can, however, conclude that the definitions in Art. 1 are not fully satisfactory.

Residues from previous carriage in bulk of substances with a low flashpoint were covered in the *draft* of the HNS Convention<sup>16</sup> (Art. 1.5.(b)).

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<sup>14</sup> The Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, 1969, and the Protocol of 1992 to Amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971. The Protocols entered into force on 30 May 1996.

<sup>15</sup> See, e.g., Colin de la Rue, *Oil Spill Compensation - Long Awaited Changes in Force*, 10 P&I INTERNATIONAL 2 (No. 5 Pollution Supplement 1996) and Måns Jacobsson, *The International Conventions on Compensation for Oil Pollution Damage*, BIMCO REV. 228-229 (1995). See also DAVID W. ABECASSIS & RICHARD L. JARASHOW, *OIL POLLUTION FROM SHIPS: INTERNATIONAL, UNITED KINGDOM AND UNITED STATES LAW AND PRACTICE* 193-302 (1985) (presenting detailed survey of international oil pollution compensation system).

<sup>16</sup> See International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, July 21, 1995, I.M.O. LEG/CONF. 10/6(a) (draft).

Damage caused by other residues fell, however, outside the Convention. During the London conference the final text was amended to include in general residues from cargoes carried in bulk. Considering the fact that residues other than those with a low flashpoint may be hazardous, the amendment was appropriate.<sup>17</sup> On the question of bunker spills, however, the conference did not succeed in reaching an agreement; rather, liability for such damage<sup>18</sup> is to be covered by a separate convention. Considering the aim to achieve internationally uniform systems of liability, such a splitting of the maritime liability into several conventions does not seem wise. Neither does it stimulate the insurance market to provide adequate liability coverage.

According to Art. 1.5.(a)(iv) of the *draft* HNS Convention, some radioactive materials (pursuant to the IMDG Code) were included in the Convention. On the other hand, it was proposed in Art. 4.3b that damage caused by radioactive materials would fall outside the HNS Convention, provided that a plant operator was liable for the transport pursuant to the international conventions on nuclear liability.<sup>19</sup> The question of radioactive materials was a highly controversial issue during the London conference, and the result was that these materials were excluded from the HNS Convention (Art. 4.3.(b)). It was argued that most of the radioactive materials were already covered by other instruments, and the conference decided that the remainder—such as materials used in hospitals and in making watches—all represented a relatively low risk.<sup>20</sup> The conference adopted a resolution recommending that the IMO and the International Atomic Energy Agency work together to define and consider issues of liability and compensation for damage occurring during the transport of radioactive materials.<sup>21</sup>

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<sup>17</sup> Cf. Art. 1.5. in the 1992 Protocol to the 1969 Civil Liability Convention.

<sup>18</sup> According to statistics from the Finnish Board of Navigation there have been 29 accidents resulting in bunker spills (a total of 938.7 tons) in Finnish waters during 1969-95. According to a submission by the Australian Maritime Safety Authority (1997) to the IMO Legal Committee, the position globally is that bunker spills from ships *other than oil tankers*: 1) account for a significantly greater number of spills; 2) represent half of the total number of pollution claims; and 3) are significantly more expensive to clean up than spills from oil tankers.

<sup>19</sup> See *supra* note 7.

<sup>20</sup> IMO NEWS, *supra* note 4, at 9.

<sup>21</sup> See RESOLUTION ON LIABILITY AND COMPENSATION FOR DAMAGE OCCURRING DURING THE TRANSPORT OF RADIOACTIVE MATERIALS, May 2, 1996, IMO LEG/CONF.10/DC.3.

The appropriateness of the exclusion of radioactive materials from the HNS Convention seems doubtful. A comprehensive liability/compensation system for the carriage of nuclear materials by sea is lacking, and it may, indeed, take some time to get one. In view of the aim to achieve a broad coverage of hazardous transports, it seems to me that the HNS Convention ought to have included all radioactive materials which are not covered by the nuclear liability conventions (as later amended). It should also be borne in mind that low-active materials may cause significant damage. Furthermore, it is hard to find any decisive insurance arguments for the exclusion.

Likewise, the issue of whether or not coal and other low-hazard materials carried in bulk (MHB)<sup>22</sup> should be covered by the HNS Convention was much debated during the conference. The text of Art. 1.5.(a)(vii) of the draft HNS Convention seemed to cover, *inter alia*, coal. A clear majority of delegations at the London conference, especially countries with an extensive import or export of coal, supported its exclusion, because, in their opinion, reliable statistics showed that coal could not cause any damage to the environment or outside the ship. The emission of methane was not deemed a safety hazard justifying the inclusion of coal, which furthermore would substantially increase transport and insurance costs, thus causing serious disadvantages to the national economies of several countries.<sup>23</sup>

Since the MHBs may cause damage, for example, in connection with fires and explosions, these materials should have been covered by the HNS Convention. During the conference it was also pointed out (the Nordic countries, among others, expressed this view) that, due to the low hazard ratio, coal and other MHB materials would initially not be required to contribute to the HNS Fund, as long as these materials kept their present safety records.

Art. 1.6. of the HNS Convention contains the definition of "damage," which is similar to other international conventions.<sup>24</sup> It is significant that

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<sup>22</sup> "Materials Hazardous in Bulk," including coal, wood chips, and metal sulfide concentrates.

<sup>23</sup> IMO NEWS, *supra* note 4, at 9. The proposal to exclude coal from the HNS Convention was put forward by Italy and supported by, *inter alia*, Australia, Japan and Canada. See Mario Guttieres & Mary Ellen Sikabonyi, *Country Reports: Italy*, 55 EUR. ENVTL. L. REV. 199 (1996).

<sup>24</sup> Convention on Civil Liability for Damage Caused during the Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels, 1989, Art. 1.10; Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, 1969, Art. 1.6.; and Council of Europe Convention on Damage Resulting from Activities Dangerous to

compensation for "loss of profit" is explicitly mentioned in the definition to make it clear that so-called pure economic loss (i.e., economic loss unconnected with personal injury or property damage) is also covered by the HNS Convention.<sup>25</sup> Such loss may hit, for example, the fishing industry and other sea-related commercial activity. However, the applicable national rules of law still have to answer many questions: including, who has the right to assert a claim for compensation (considering that infringement of so-called public rights also may result in pure economic losses);<sup>26</sup> how far does the right to compensation for pure economic losses extend (considering, *inter alia*, questions of proximate cause and remoteness of the damage); etc. National solutions might impede the development of a uniform interpretation of the definition of "damage" which is essential for the functioning of the regime of compensation established by the HNS Convention. Some guidance for solving these issues may, however, be obtained from the practice of the International Oil Pollution Compensation Fund [IOPC Fund] established under the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971.<sup>27</sup> The IOPC Fund has, over the years, gained considerable experience as regards the interpretation and application of the international oil pollution compensation system. In the context of more than 70 incidents the Fund has also had to deal with the admissibility of claims for pure economic loss.<sup>28</sup>

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the Environment, 1993, Art. 2.7.

<sup>25</sup> Art. 1.6.: " 'Damage' means: . . . (c) loss or damage by contamination of the environment caused by the hazardous and noxious substances, provided that compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken; and . . . ."

<sup>26</sup> See generally Peter Wetterstein, *A Proprietary or Possessory Interest: A Conditio Sine Qua Non for Claiming Damages for Environmental Impairment*, in HARM TO THE ENVIRONMENT: THE RIGHT TO COMPENSATION AND THE ASSESSMENT OF DAMAGES 29-54 (Peter Wetterstein ed., 1996).

<sup>27</sup> Fund Convention, *supra* note 6.

<sup>28</sup> See Peter Wetterstein, *Oil Pollution and Pure Economic Losses*, in TOME XIV ANNUAIRE DE DROIT MARITIME ET OCÉANIQUE 37-52 (1996). See also WU CHAO, POLLUTION FROM THE CARRIAGE OF OIL BY SEA: LIABILITY AND COMPENSATION 299-335 (1996). From its establishment in October 1978 up to 31 December 1995, the IOPC Fund has been involved in the settlement of claims arising out of seventy-two incidents. The total compensation paid by the IOPC Fund amounts to some GBP 116 million. See INTERNATIONAL OIL POLLUTION COMPENSATION FUND. ANNUAL REPORT 32 (1995).



The definition of "damage" in the HNS Convention also makes it clear that claims for damage to the environment ("compensation for impairment of the environment") are admissible. Although "environment" is not defined in the HNS Convention, the notion seems to cover damage to the environment as such (*per se*), for example, damage to species of flora and fauna, to food chains in the environment, to aesthetic and cultural values, etc.<sup>29</sup> The right to compensation is, however, explicitly restricted to "costs of reasonable measures of reinstatement actually undertaken or to be undertaken." This wording gives rise to some unanswered questions with possible detrimental effect on the efforts to achieve international uniformity. How should the costs for restoration of the environment be calculated?<sup>30</sup> What are *reasonable* measures of reinstatement?<sup>31</sup> Should interim losses of

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<sup>29</sup> See Peter Wetterstein, *supra* note 26, at 30 with references. For example, Art. 2.10. of the Council of Europe Convention on Damage Resulting from Activities Dangerous to the Environment, 1993, contains the following specification: " 'Environment' includes: - natural resources both abiotic and biotic, such as air, water, soil, fauna and flora and the interaction between the same factors; - property which forms part of the cultural heritage; and - the characteristic aspects of the landscape".

<sup>30</sup> The issue of measurement of damages for purpose of liability for loss or destruction of natural resources has been debated heatedly, especially in the U.S. See, e.g., Charles B. Anderson, *Litigating and Settling a Natural Resource Damage Claim in the United States: The Defense Lawyer's Perspective*, in 27 HARM TO THE ENVIRONMENT, *supra* note 26, at 207-219; Carol A. Jones & Theodore D. Tomasi & Stephanie W. Fluke, *Public and Private Claims in Natural Resource Damage Assessments*, 20 HARV. ENVTL. L. REV. 111 (1996); RAYMOND J. KOPP & V. KERRY SMITH (ED.), VALUING NATURAL ASSETS: THE ECONOMICS OF NATURAL RESOURCE DAMAGE ASSESSMENT (1993). See also PETER WETTERSTEIN, ENVIRONMENTAL IMPAIRMENT LIABILITY IN ADMIRALTY: A NOTE ON COMPENSABLE DAMAGE UNDER U.S. LAW 148-153, 160-181 (1992); Björn Sandvik, *Broadening the Scope of Compensation for Damage to Natural Resources - What Can We Learn from U.S. Law?* 218 MARIUS (1995); MARIE-LOUISE LARSSON, ON THE LAW OF ENVIRONMENTAL DAMAGE. LIABILITY AND REPARATION 535-556 (1997).

<sup>31</sup> For example, the CMI GUIDELINES ON OIL POLLUTION DAMAGE, adopted in Sydney 1994, contain the following specification (12(d)): "In determining whether measures of reinstatement are reasonable, account is to be taken of all the relevant technical factors including (but not limited to) the following: (i) the extent to which the observed state of the environment, and any changes therein, are to be regarded as damage actually caused by the incident in question, as distinct from other factors whether man-made or natural; (ii) whether the measures are technically feasible and likely to contribute to the re-establishment at the site in question of a healthy biological community in which the organisms characteristic of that community are present and are functioning normally; (iii) the speed with which the affected environment may be expected to recover by natural processes and the extent to which the reinstatement measures concerned may accelerate (or inadvertently impede) natural processes

natural resources and services (lost "use values") be compensated?<sup>32</sup> If restoration of the environment is not possible, is the shipowner free from liability? Who has *locus standi* to claim for restoration costs?<sup>33</sup>

As noted above, the HNS Convention adopts "damage" definitions similar to those in other conventions. However, some clarifications ought to have

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of recovery, and (iv) whether the cost of the measures is in proportion to the damage or the results which could reasonably be expected". In the U.S. a cost/benefit analysis seems to be the basis for the "grossly disproportionate test": "The relationship of the expected costs of the proposed actions to the expected benefits from the restoration, rehabilitation, replacement, and/or acquisition of equivalent resources". See 43 CFR § 11.82(d)(1). See also, e.g., Frank B. Cross, *Natural Resource Damage Valuation*, 42 VAND. L. REV. 334 (1989), and Thomas S. Stewart, *Utah v. Kennecott Corporation: Seeking Ultimate Values with the 'Grossly Disproportionate' Test for Natural Resource Damage Assessments*, 13 ST. LOUIS U. PUB. L. REV. 887-932 (1994). See also *Puerto Rico v. The S.S. Zoe Colocotroni*, 628 F.2d 652 (1st Cir. 1980).

<sup>32</sup> In the U.S. natural resource damage claims under CERCLA (Comprehensive Environmental Response, Compensation and Liability Act of 1980) and OPA (Oil Pollution Act of 1990) have three basic components: 1) the cost of restoring, rehabilitating, replacing, or acquiring the equivalent of, the damaged natural resources; 2) the diminution in value of those natural resources pending recovery of the resource to baseline (*cf.* OPA, 33 U.S.C. § 2706 (d)(1)(B)); and 3) the reasonable cost of assessing those damages. The second component of the claim captures the reduction in the value of *resources/services* (e.g., pollution impairing commercial activities and recreational opportunities in the affected area) pending recovery of the injured resources. See Natural Resource Damages Assessment Regulations (NRDA) for Hazardous Substances which have been codified at 43 CFR Part 11. Lost use values are measured by changes in *consumer surplus*: "The compensable value includes the value of lost public use of the services provided by the injured resources, plus lost nonuse values such as existence and bequest values. Compensable value is measured by changes in consumer surplus, economic rent, and any fees or other payments collectable by a Federal or State agency or an Indian tribe for a private party's use of the natural resources; and any economic rent accruing to a private party because the Federal or State agency or Indian tribe does not charge a fee or price for the use of the resources" (43 CFR § 11.83(c)(1)). A survey of the measurement of lost use values is presented by Jones et al., *supra* note 30, at 126-163. It should also be noted that the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce promulgated NRDA regulations for OPA on January 5, 1996 (61 Fed. Reg. 440), which emphasize 'restoration-based measures' for compensating, the interim loss component of natural resource damage claims, ('resource compensation'). See Carol A. Jones, *The New Restoration-Based Measures of Compensation in Natural Resource Damage Assessment Regulations: Methodological Challenges*, 16 AERE NEWSLETTER 5-8 (1996). The NOAA regulations are currently being challenged in *General Electric Co. v. U.S. Department of Commerce*, No. 96-1096 (D.C. Cir.).

<sup>33</sup> See generally Wetterstein, *supra* note 26, at 50-54; see also Marie-Louise Larsson, *supra* note 30, at 584-589.

been made in the text, for example, that the shipowner has an obligation to acquire "equivalent resources and habitat" when restoration of the environment cannot reasonably be made (cf. Art. 2.8. of the *Council of Europe Convention on Damage Resulting from Activities Dangerous to the Environment*, 1993<sup>34</sup>).<sup>35</sup>

Pursuant to the definition of "carriage by sea" in Art. 1.9. the HNS Convention covers the period from the time when the hazardous and noxious substances enter any part of the ship's equipment, on loading, to the time they cease to be present in any part of the ship's equipment, on discharge. If no ship's equipment is used, the period begins and ends respectively when these substances cross the ship's rail.

This definition of carriage is another source of interpretative difficulties. What is meant by "ship's equipment?" Is the decisive factor ownership (cf. proprietary or possessory interests) of the equipment used, or does the notion cover all equipment *on board* the ship irrespective of ownership? Is there an internationally uniform meaning of the concept "ship's equipment?"

Since the risk of damage is rather substantial in connection with loading/unloading operations (e.g., the *Grandcamp* disaster 1947<sup>36</sup>), one can question the appropriateness of delimiting the coverage of the HNS Convention by such, as it seems, unclear and difficult criteria. A better and more appropriate solution would have been to cover the whole period of

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<sup>34</sup> The Explanatory Report (*Draft Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment and Explanatory Report*, COUNCIL OF EUR. DOC. (DIR/JUR 92) 2 (1993) contains the following statement: "When it is impossible to restore or re-establish the environment, the measures of reinstatement may be in the form of the reintroduction of equivalent components into the environment. This applies for example in the case of the disappearance of an animal species or the irreparable destruction of a biotope. Such damage cannot be evaluated financially and any reinstatement of the environment is in theory impossible. Since such difficulties must not lead to a complete absence of compensation, a specific method of compensation has been introduced. This method of compensation is based on achieving an equivalent instead of an identical environment" (at 28). On such issues, see also Colin de la Rue, *Environmental Damage Assessment in TRANSNATIONAL ENVIRONMENTAL LIABILITY AND INSURANCE* 70-72 (Ralph P. Kröner ed., 1993).

<sup>35</sup> The American OPA covers not only "costs of removal", but also "the cost of restoring, rehabilitating, replacing, or acquiring the equivalent of, the damaged natural resources" (33 U.S.C. § 2706 (d)(1)(A-C). Cf. 43 CFR § 11.80 (1996) (regarding CERCLA).

<sup>36</sup> See *supra* note 1 and related text.

loading/unloading,<sup>37</sup> as in Art. 4.1 of the *United Nations Convention on the Carriage of Goods by Sea, 1978* (the Hamburg Rules).<sup>38</sup>

### *B. Strict Liability With Exceptions*

Art. 7 of the HNS Convention provides that the shipowner has strict liability for damage caused by HNS substances on board his ship. Strict liability is in conformity with the solutions in, *inter alia*, the oil pollution conventions. Likewise, the exceptions under Art. 7.2, subparas. (a) - (c) correspond to the rules in the oil pollution field. No liability shall be attached to the shipowner if he proves that the damage resulted from an act of war (or similar act) or a natural phenomenon of an exceptional, inevitable and irresistible character (a). Concerning natural phenomena it is noteworthy, that the HNS Fund is not excepted from liability (cf. Art. 14.3.). However, there is a special rule limiting amounts for damage resulting from natural phenomena to 250 million SDRs maximum (Art. 14.5.(b)). One can of course question the appropriateness of excepting the shipowner, but not the Fund (i.e., the importers). But considering the argument put forward that the hazardous character of the cargo motivates a separate HNS Fund, such a division of the risk may ultimately be reasonable.

Further, the shipowner is excepted if he proves that "the damage was wholly caused by the negligence or other wrongful act of any Government or other authority responsible for the maintenance of lights or other navigational aids in the exercise of that function" (c). This exception has caused great interpretative difficulties in the oil pollution field,<sup>39</sup> and,

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<sup>37</sup> The U.S. delegation made a proposal (CW/WP2) that the HNS Convention should cover the whole period from the commencement of the loading until the unloading has been finished. The diplomatic conference did not, however, adopt the proposal.

<sup>38</sup> *United Nations Convention on the Carriage of Goods by Sea*, Mar. 31, 1978, 17 I.L.M. 608. Art. 4.1. of the Hamburg Rules: "The responsibility of the carrier for the goods under this Convention covers the period during which the carrier is in charge of the goods at the port of loading, during the carriage and at the port of discharge".

<sup>39</sup> On this exception, see, e.g., Abecassis & Jarashow *supra* note 15, at 205-206, and JOHN H. BATES & CHARLES BENSON, MARINE ENVIRONMENT LAW 4.24 (1993). See also the Swedish Supreme Court decision *M/T Tsesis*, ND (NORDISKE DOMME I SJØFARTSANLIG-GENDER) 1 (1983), where the court held that incorrect nautical charts came within the exception. For a comment on the *Tsesis* decision, see Claës J. Palme, *Oil Pollution - The Tsesis Case*, in FESTSKRIFT TILL JACOB W.F. SUNDBERG 229-239 (1993). In *M/T José Martí*, ND 64 (1987), the Svea Court of Appeal held that pilot's negligence was outside the exception.

consequently, it is not a success from the viewpoint of harmonizing international maritime law. Voices have been raised to delete this exception, but the 1992 Protocols to the oil pollution conventions still maintain it. One can also ask whether it is reasonable to except the shipowner and his insurer from such risks closely connected with the running of ships. In any event, the text of this exception needs some clarification.

There is one more exception from liability. According to Art. 7.2(d) the shipowner is free from liability if he proves that the shipper (or any other person) has failed to furnish information concerning the hazardous and noxious nature of the substances shipped and that this failure has caused the damage (wholly or partly) or has led the shipowner not to obtain insurance in accordance with Art. 12. A further condition requires that neither the shipowner nor his servants or agents knew or ought reasonably to have known of the dangerous nature of the goods shipped. Since such an exception is lacking from the oil pollution regime, one may reasonably ask whether such an additional exception from the strict liability rule is needed. Arguments against the exception are, *inter alia*, the need for uniformity within the maritime compensation system, the shipowner's right to recourse actions, and the difficulties of proof such a rule obviously will cause. The exception may lead to much litigation and the involvement of the HNS Fund even in small compensation matters. On the other hand, it must be admitted that oil cargoes are more homogeneous and easier to control than HNS goods, which might be an argument in favor of the solution adopted.

### C. Limitation of Liability

Concerning limitation of liability (Art. 9), it is of course essential that the limits are high enough. This is especially important regarding the "minimum limit", since small ships often transport high risk goods. The administration of the HNS Fund should not be loaded with a lot of small claims. The limit of liability for ships up to 2,000 tons is 10 million SDRs. Whether this is an appropriate limit will be shown in the future.<sup>40</sup>

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<sup>40</sup> It has to be noted that pursuant to Art. 5 of the HNS Convention a Contracting State may, at the time of ratification or any time thereafter, declare that the Convention does not apply to ships which do not exceed 200 gross tonnage when these ships carry HNS goods in packaged form between ports of that state. This exception was justified by the desire to promote the transport situation of small island states. It may also be difficult for such ships to arrange compulsory insurance in accordance with the HNS Convention.

As regards the constitution of the limitation fund, two alternative systems were suggested in the draft HNS Convention. According to the first alternative, the shipowner was obliged, in order to have the right to limit his liability, to constitute a "free standing" limitation fund, that is, a limitation fund which only covered HNS claims. Consequently, if a single occasion resulted in different types of claims, each claim was covered by its own limitation rules (the rules on oil pollution liability, the general limitation rules, the HNS system, etc.). According to the second alternative, the general limitation fund (constituted in conformity with the limitation conventions of 1924, 1957 or 1976, or with national law) should also cover HNS claims ("linkage"). If, however, the sums available for compensation were insufficient, the shipowner would have had to constitute a supplementary fund up to the limits of the HNS system. Consequently, non-HNS claimants would be competing with HNS claimants in the general limitation fund. This could have resulted in less compensation for the former group of claimants than what they would get under free standing funds.

Considering both the last mentioned viewpoint and the technical and other difficulties connected with the "linkage" alternative, free standing limitation funds seem to be more appropriate. This was also the decision of the London conference. During the conference it was maintained, however, without any specifying proof, that the "linkage" alternative would facilitate larger insurance capacity (or in other words, it would be cheaper for the shipowners). Be that as it may, it was important to choose a solution favorable to claimants other than HNS claimants, considering especially that the general limitation amounts are quite inadequate.<sup>41</sup> Furthermore, my impression is that the development of liability rules is more governed by the P&I market than steered by the lawmakers. It should be the other way around: the P&I and the insurance market should follow the lawmakers (cf. the development in other fields of environmental impairment liability).<sup>42</sup>

In connection with capacity matters it may be noted that the division of the HNS Fund into one general account and three separate accounts for oil,

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<sup>41</sup> It must be noted, however, that the London conference also adopted a Protocol to amend the 1976 limitation convention (LLMC) which raises the limitation amounts 2.4 times. The Protocol also contains the important provision, that a Contracting State may exclude HNS claims from the coverage of the LLMC (Art. 7.1(b)). See IMO LEG/CONF.10/DC.2, May 2, 1996 (Protocol of 1996 to Amend the Convention on Limitation of Liability for Maritime Claims, 1976).

<sup>42</sup> See Peter Wetterstein, *P&I and Environmental Damage, in LAW UNDER EXOGENOUS INFLUENCES*, 1 PUBLICATIONS OF TURKU LAW SCHOOL 78-113 (Markku Suksi ed., 1994).

liquefied natural gas (LNG) and liquefied petroleum gas (LPG) seems doubtful. However some industrial nations with large imports of hazardous substances, especially Japan, demanded such a division. The system with separate accounts was seen as a way to avoid cross-subsidization between different HNS substances.<sup>43</sup> Considering that such a division into separate accounts may have a detrimental effect on the compensative capacity of the Fund in larger accidents and may also increase the administrative difficulties in calculating the contributions, a single account system would have been preferable.

#### *D. Time Limits for Claims*

The provisions on limitation of actions in the HNS Convention cause some problems. Pursuant to Art. 37.1 an action for compensation under Chapter II (shipowner's liability) must be brought within three years from the date when the person suffering the damage knew or ought reasonably to have known of the damage *and* of the identity of the owner. Further, according to Art. 37.2 rights to compensation from the HNS Fund will be extinguished unless an action is brought, or a notification pursuant to Art. 39.7 is made, within three years from the date when the person suffering the damage knew or ought reasonably to have known of the damage. Consequently, if a claimant discovers the identity of the shipowner later than three years from the date when he knew of the damage, a claim against the Fund might be extinguished, for example, in cases of limitation of the shipowner's liability or his insolvency. There may be occasions when it is difficult, as well as time-consuming, to clarify that the damage has resulted from sea transport, and not from land-based activity (cf. Art. 14.3(b) of the HNS Convention). The time limits for claims against the Fund ought to correspond to—or even exceed—the time limits against the shipowner.<sup>44</sup> Of importance is the level of proof the Fund will require from the person suffering the damage (cf. Art. 14.1.(b) of the HNS Convention). In any case, it seems important to bring a claim against the Fund when damage occurs.

The ultimate time limit for bringing claims, that is, ten years from the date of the incident which caused the damage (Art. 37.3), can also be criticized, since many of the hazardous substances covered by the HNS Convention

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<sup>43</sup> See IMO NEWS, *supra* note 4, at 8.

<sup>44</sup> Different time limits may also confuse the persons suffering damage, see IMO LEG/CONF.10/6(A), 20 FEB. 1996 at 11.

may have harmful effects occurring later than ten years from the incident. The methods of establishing causal links are constantly improving. Is it desirable that such harmful effects might fall outside the HNS system or should the time limit have been extended? An extension could have been made either as a general extension<sup>45</sup> or as an exception for certain hazardous substances/kinds of damage (e.g., personal injury).

#### IV. CONCLUSIONS

In this article I have restricted myself to some comments on the HNS Convention. More aspects, with corresponding criticisms, could have been put forward.<sup>46</sup> One has to remember, however, that the HNS Convention, as other international treaties, is a compromise reflecting many differing views and opinions (political, social, economic, etc.). The interesting question is, therefore, whether the Convention really will have a unifying effect on the maritime liability rules and will function as an adequate international compensation system (cf. the oil pollution system). Primarily these results depend on decisions national legislators will have to make, but I believe that many states have a positive view and that the HNS Convention will enter into force before too long. Many states, for example, Australia, Japan, many EU countries, and the Nordic countries, expressed positive attitudes toward the Convention during the London conference. However, in practice states often "watch each other", which tends to delay international conventions from the entering into force.

It is critical that most EU countries accede to the HNS Convention in order to prevent the EU Commission from taking unilateral action. The Commission has shown interest for liability questions in connection with the transport of hazardous and noxious substances. A regional solution would, however, not facilitate international uniformity.

Furthermore, it will be interesting to see what position the U.S., which has a large chemical industry, will take. The U.S. has neither ratified the 1969

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<sup>45</sup> It is notable that the Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, June 1993, 32 I.L.M. 1228 (1993), provides for an ultimate time limit of thirty years (Art. 17.2.).

<sup>46</sup> A comprehensive presentation of the draft HNS Convention (1995) is given by Nicholas Gaskell, *The Draft Convention on Liability and Compensation for Damage Resulting from the Carriage of Hazardous and Noxious Substances*, in *ESSAYS IN HONOUR OF HUGO TIBERG* 225-296 (1996).



Civil Liability Convention nor the 1971 Fund Convention<sup>47</sup> nor acceded to the amending Protocols of 1984<sup>48</sup>—although the country exerted considerable public and private pressure to shape these international instruments in accordance with its own wishes (e.g., raising the monetary limits and amounts in the conventions). Instead, the U.S. Congress adopted its own oil pollution legislation, the Oil Pollution Act of 1990.<sup>49</sup> The decision not to accede to the 1984 Protocols was much criticized; for example, President Bush chastised Congress for refusing to endorse the international oil spill treaties.<sup>50</sup>

It would be desirable for the U.S. to ratify the HNS Convention. Arguments in favor of ratification are: the advantages of internationally

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<sup>47</sup> It is interesting to note that the U.S. declined to ratify the 1969 Civil Liability Convention and the 1971 Fund Convention “largely because of dissatisfaction with the liability limits, the difficulty of increasing limits in the future, and concern for the states’ role in pollution protection.” Thomas J. Wagner, *The Oil Pollution Act of 1990: An Analysis*, 21 J. MAR. L. & COM. 569, 572 (1990). However, in spite of the U.S. dissatisfaction with the international limits, the domestic limits remained roughly equal to the international limits from 1978 to 1990. *Id.*

<sup>48</sup> The Protocols of 1984 were replaced by the Protocols of 1992. The prior Protocols never entered into force, largely because of strong U.S. opposition. *See also* de la Rue, *supra* note 15, at 2.

<sup>49</sup> Oil Pollution Act of 1990, Pub. L. No. 101-380, 104 Stat. 484 (codified as amended at 33 U.S.C. 2701-2761 (Supp. II 1990)). One important manifestation of the Exxon Valdez spill in March 1989 was that the long-delayed comprehensive oil spill legislation (OPA) finally passed Congress and was signed by President Bush on Saturday 18 August 1990—16 months and 25 days after the accident. Prior to the Exxon Valdez spill, the enactment of any type of comprehensive oil spill legislation had proved impossible—despite the obvious need for a supplementation, if not overhaul, of existing oil pollution legislation. Since 1975 several bills to combine all state and federal oil spill liability laws into a uniform national program had been proposed and had subsequently died. *See* Wetterstein, *supra* note 30, at 75-77.

<sup>50</sup> President Bush stated, *inter alia*: “H.R. 1465 does not implement the 1984 Protocols to the 1969 Civil Liability Convention and the 1971 Fund Convention. These oil spill treaties, if ratified, would provide our Nation with swift and assured compensation for foreign tanker oil spills and access to up to \$260 million per spill from an international fund. Our failure to ratify the Protocols may weaken long-standing U.S. leadership in the development of international maritime standards . . . Ultimately, the threat of oil pollution is a global challenge, and the solutions we devise must be broad enough to address the needs of all nations. Therefore, I urge the Senate to give immediate consideration to the international Protocols and give its advice and consent to ratification of these treaties”. 36 SCANDINAVIAN SHIPPING GAZETTE 7 (1990). Senate Democratic leader George Mitchell led the opposition to the international protocols, as he feared it would limit the liability of major oil companies in the event of a spill. LLOYD’S LIST, Monday August 20 (1990).

uniform liability systems; the aim to decrease the unpredictability and uncertainty of the legal framework surrounding accidents involving carriage by sea of hazardous and noxious substances; access to the international compensation scheme; etc.<sup>51</sup> Since this is the first international convention of its kind, a U.S. ratification would further the willingness of other nations to accede to it. Possible conflicts with U.S. national law, for example, the broad notion of recoverable natural resource damages under CERCLA<sup>52</sup>/OPA compared with the more restrictive definition in the HNS Convention and the differing provisions on limitation of liability, could be solved by complementary domestic compensation arrangements.<sup>53</sup>

The HNS Convention is comprehensive in both its coverage of hazardous and noxious substances (currently more than 6,000) and its geographical application.<sup>54</sup> Strict liability of the shipowner, together with the complementary HNS Fund, strengthen the position of claimants. The Convention contains advantages for the shipowner, as well, *inter alia*, by speeding up the claims procedure and minimizing possibilities of arrest or other security measures. The HNS Convention could thus form an acceptable basis for a functioning international compensation system. However, as was stated

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<sup>51</sup> Cf. Wetterstein, *supra* note 30, at 198-200.

<sup>52</sup> The Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C.A. § 9601 et seq., 1980 (with later amendments). *N.b.*, federal law, does not cover oil pollution damage. See Wetterstein, *supra* note 30, at 102-124, 160-181. While the Clean Water Act (CWA) may be applicable to spills of hazardous substances in waterways, neither Act covers private claims for damages (other than "clean-up costs") 33 U.S.C. § 1365.

<sup>53</sup> Ratification would not prevent the U.S. from establishing a complementary domestic compensation fund (over and above the international HNS Fund and financed by e.g., taxes and fees on chemicals, gases, and similar products) to cover incidents and circumstances not covered by the HNS Fund. Cf. Thomas J. Schoenbaum, *Liability for Spills and Discharges of Oil and Hazardous Substances from Vessels*, 20 FORUM 152, 163 (1984) (noting that ratification of the Civil Liability Convention and Fund Convention together with the 1984 Protocols would not prevent U.S. establishment of a complementary domestic liability fund). Ratification would also unify U.S. national law because any other federal or state law will, by necessity, be preempted by the international treaty insofar as it is in conflict with the latter. See U.S. Const. Art. VI cl. 2.

<sup>54</sup> According to Art. 3 the HNS Convention shall apply to *any damage* caused in the territory, including the territorial sea, of a Contracting State (a). Covered are also *damage by contamination of the environment* caused in the exclusive economic zone of a Contracting State (b), and *damage, other than damage by contamination of the environment*, caused outside the territory, including the territorial sea, of any State, if this damage has been caused by a substance carried on board a ship *registered in a Contracting State* (c). Finally, the HNS Convention applies to preventive measures, *wherever taken* (d).

earlier, the international success of the Convention depends upon the compensation amounts being adequate and the administration of the system not being too complex and unwieldy, especially regarding the reporting obligation put on the receivers of HNS cargoes.

As a general observation one can say in conclusion that the splitting of the maritime liability into many conventions with varying Contracting States seems doubtful. We now have conventions on nuclear liability, oil pollution liability, HNS liability, limitation of liability, as well as ongoing discussions for conventions on bunker liability, liability for wreck removal, compulsory liability insurance, etc. Such developments restrain efforts to achieve internationally uniform and effective solutions. Furthermore, separate conventions impede the possibilities of effectively using the capacity of the insurance market. It ought to be possible to agree that only the oil pollution liability, due to its homogeneity and well developed compensation system, and the nuclear liability, because of its special character, should be covered by separate conventions and that, otherwise, liability should be governed by one maritime liability convention. Under such a convention strict liability, together with compulsory insurance or other financial guarantee, should be channelled to the shipowner, and the limitation amounts should be as high as possible (or unlimited liability should be introduced<sup>55</sup>). The insurance market ought to follow and adjust itself to developments within the maritime liability field.<sup>56</sup> Instead of a "two-tier" system with administrative and other difficulties, the insurance market should bear the costs of compensation. The costs (premiums) for the shipowners would thus be transferred to their customers and, consequently, to the consumers and other users of transported goods.<sup>57</sup> Relevant liability questions in the relationship between shipowners and charterers can be regulated in the charterparties. Such a compensation system would also harmonize with the "polluter pays" principle<sup>58</sup> which is gaining increasing support in international environmen-

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<sup>55</sup> On unlimited liability, see Wetterstein, *supra* note 42, at 103-108, also published in P&I INSURANCE, 71 GOTHENBURG MAR. L. ASS'N 133-136 (1995).

<sup>56</sup> See *supra* note 55 and accompanying references.

<sup>57</sup> Also from the environmental point of view, this seems "quite acceptable as consumers of pollutants must be prepared to take greater responsibility for environmental costs." Edgar Gold, *Marine Pollution Liability After 'Exxon Valdez': The U.S. 'All-Or-Nothing' Lottery*, 22 J. MAR. L. & COM. 423 439 (1991).

<sup>58</sup> The "polluter pays" principle was originally defined to finance preventive measures, but the principle has been expanded also to incorporate costs for damage to the environment. The theoretical basis of the "polluter pays" principle is the "internalization of external costs". The

tal law. Although cargoes undeniably often are hazardous, it is, nevertheless, fault or negligence on the part of the ship that mostly causes accidents.

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principle has been supported by the OECD and was incorporated in EC law through the 1987 Single European Act (Art. 130r) and in the 1992 Maastricht Treaty. On this principle, *see* LARSSON, *supra* note 30, at 78-82 with references.