

THE RIJEKA DRAFT OF A CONVENTION ON THE LIABILITY OF OPERATORS OF NUCLEAR SHIPS: A VERY LATE REQUIEM

Doc. JUdr. Jakub Handrlica*

UDK: 341.225::347.791

<https://doi.org/10.30925/zpfsr.40.3.8>

Ur.: 16. lipnja 2019.

Pr.: 9. prosinca 2019.

Pregledni rad

Summary:

Sixty years ago, from 20th to 26th September 1959, the Nineteenth Conference of the International Maritime Committee (Comité Maritime International) was held in Rijeka. Facing the challenges arising from contemporary plans to use nuclear power in marine transport (in particular to use nuclear reactors as a source of transport for both civil and military ships), the Conference adopted a draft of a convention that aimed to address the issue of liability of the operators of nuclear ships. The draft convention reflected the fact that liability issues arising from nuclear ships considerably differ from those issues, arising from the operation of land-based nuclear reactors. This draft convention, which became later widely known as “the Rijeka Draft” in legal literature, provided for basic liability principles that were to be applied to operators of nuclear ships. The Rijeka Draft became crucial for the later developments in the field of international nuclear law, in particular for the adoption of the Brussels Convention on the Liability of Nuclear Ships at the Eleventh Session of the Diplomatic Conference on Maritime Law in 1962. However, it also influenced the content of several other bi-lateral agreements. The 60th anniversary of the Rijeka Draft allows a good opportunity to revisit the principles provided by the draft convention as well as to revisit the impact of this draft on further development of international nuclear law.

Keywords: *nuclear liability; nuclear ships; international nuclear law; international maritime law; liability principles.*

1. INTRODUCTION

Sixty years ago, from 20th to 26th September 1959, the Nineteenth Conference of the International Maritime Committee (Comité Maritime International, thereafter

* Jakub Handrlica, Ph.D., Associate Professor, Faculty of Law, Charles University in Prague, Czech Republic, jakub.handrlica@prf.cuni.cz.

“the IMC”¹ was held in Rijeka. In fact, it was the first of the IMC conferences that wasn’t held in Western Europe² and also the very first held in a Socialist country. 190 participants, representing 21 different regional chapters of the IMC, took part at the Conference.³ Obviously, by organising the Conference in Rijeka, the Yugoslav regime aimed to show its openness to the West and willingness to co-operate on further development of international law.⁴

This Nineteenth Conference of the IMC addressed in particular the issue of liability of operators of nuclear ships.⁵ The design, development and production of nuclear marine propulsion plants began in the United States in the 1940s, with the first test nuclear reactor started in 1953. The first nuclear-powered military submarine, “USS Nautilus”, was put to sea in 1955. In the following years, the US fleet of nuclear-powered submarines increased very quickly and, during the very late 1950s, approximately 12 nuclear powered submarines were launched.

The Soviet Union followed the United States in developing nuclear-powered submarines. After overcoming many obstacles, including steam generation problems, radiation leaks and other difficulties, the first nuclear-powered submarine, “K-3 Leninskiy Komsomol”, entered service in the Soviet Navy in 1958.

Furthermore, there were considerable developments in the area of nuclear-powered civil vessels. In 1957, the Soviet Union launched the world’s first nuclear powered civilian vessel, the nuclear icebreaker “NS Lenin”, intended to aid shipping in frozen Arctic areas. In 1959, a working group of the United States Academy of Sciences predicted that there would be approximately 300 nuclear-powered ships by

-
- 1 The International Maritime Committee (Comité Maritime International) was established as a non-governmental organisation in 1897 with the object to contribute by all appropriate means and activities to the unification of maritime law in all its aspects.
 - 2 After Conferences in Brussels (1897), Antwerp (1898), London (1899), Paris (1900), Hamburg (1902), Amsterdam (1904), Liverpool (1905), Venice (1907), Bremen (1909), Paris (1911), Copenhagen (1913), Antwerp (1921), London (1922), Gothenburg (1923), Genoa (1925), Amsterdam (1927), Antwerp (1930), Oslo (1933), Paris (1937), Antwerp (1947), Amsterdam (1949), Naples (1951) and Madrid (1955).
 - 3 The event was reflected in the contemporary literature by Legendre, A., *La conférence de Rijeka, Droit maritime français*, vol. 36, 1959, pp. 707-709, Filipović, V., *Problemi odgovornosti za nuklearne štete i Riječka konferencija CMI, Naša zakonitost*, 1960, pp. 179-186, Chaveau, P., *Les navires nucléaires à la Conférence de Rijeka, Semaine juridique*, 1960, pp. 1529-1530 and by Thornton, W., *The Nuclear Ship in the International Community, JAG Journal*, vol. 9, 3-4/1960, pp. 9-12. A more contemporary reference can be found in Filipović, V. *Riječka konferencija međunarodnog pomorskog odbora (CMI-a) 1959. i odgovornost poduzetnika nuklearnih brodova. Zbornik Pravnog Fakulteta u Zagrebu*, vol. 52, 6/2002, pp. 1181-1190.
 - 4 Filipović, V. *Riječka konferencija međunarodnog pomorskog odbora (CMI-a) 1959*, p. 1182.
 - 5 The revision of the Article X of the International Convention for the Unification of certain rules of Law relating to the Bills of Lading and the revision of the Article XIV of the International Convention on the Unification of certain rules of law relating to assistance and salvage at sea were subject of discussion. Further topics, discussed at the Nineteenth Conference of the IMC included letters of indemnity in maritime transport, International Statute of Ships in Foreign Ports and the registry of operators of ships. See Lilar, A., Van den Bosch, C., *Le Comité Maritime International 1897-1972 / International Maritime Committee 1897-1972*, p. 114.

1970.⁶

Only two months before the Nineteenth Conference of the IMC assembled in Rijeka, the first US-produced nuclear-powered cargo-passenger ship, “NS Savannah”, was launched. Italy and the United Kingdom simultaneously announced plans to construct nuclear ships.⁷

Consequently, after demonstrating that nuclear energy could be effectively used to provide marine propulsion, attention turned to the need to provide effective legal protections for the general public against radiation dangers and other forms of damage possibly caused by nuclear ships.⁸ Facing these challenges, efforts led to formulate a multilateral treaty to regulate matters of nuclear liability arising from the use of nuclear power in marine propulsion.

At the same time, the International Atomic Energy Agency (hereinafter “the IAEA”) and the OECD’s European Nuclear Energy Agency (hereinafter “the OECD/NEA”) began preparing multilateral instruments that became the Convention on *Third Party Liability in the Field of Nuclear Energy* (adopted in 1960, hereinafter “the Paris Convention”)⁹ and the *Vienna Convention on Civil Liability for Nuclear Damage* (adopted in 1963, hereinafter “the Vienna Convention”).¹⁰

However, these multilateral instruments were aimed exclusively at governing nuclear liability arising from the operation of land-based nuclear reactors.¹¹ There was a common understanding, that matters of nuclear liability for damages incurred by the operation of nuclear ships must be reserved for a specialized international treaty.¹² In contrast to the liability regime, which was to be established *vis-à-vis* the land-based nuclear reactors, several specific issues were identified, which were to be

6 Hardy, M. The Liability of Operators of Nuclear Ships, *International and Comparative Law Quarterly*, vol. 12, 3/1963, p. 778.

7 OECD, *Nuclear Power for Merchant Ships*, OECD Observer, 1970, p. 27.

8 *ibid.*, p. 29.

9 The Convention on Third Party Liability in the Field of Nuclear Energy (adopted 29 July, 1960), as amended by the Additional Protocol of 1964 (adopted 28 January, 1964, entered into force 1 April, 1968) and by the Protocol of 1982 (adopted 16 November, 1982, entered into force 7 October, 1988).

10 The Vienna Convention on Civil Liability for Nuclear Damage (adopted 21 May, 1963, entered into force 12 November, 1977), INFCIRC/500.

11 Handrlica, J., Novotná, M., The Vienna convention on civil liability for nuclear damage: past, evolution and perspectives, *Juridical Tribune – Tribuna Juridica*, vol. 8, 2018, pp. 55-56.

12 Dagna, C. La responsabilità dell’armatore di navi nucleari, *Diritto ed economia nucleare*, vol. 1, 1959, pp. 267-269, Fergusson, E., Liability of Nuclear Powered Vessels: the Work Toward an International Convention – Some Problems and Principles, *Atomic Energy Law Journal*, vol. 2, 1/1960, pp. 25-35, Seaver, R., The impact of nuclear propulsion on admiralty and shipping law, In: American Bar Association (ed), *Section of Negligence, Insurance and Compensation Law, Proceedings 1959-1960*, American Bar Center, Chicago, 1960, pp. 178-188, Miller, C. Problems of International Legislation regulating the Liability of Operators of Nuclear Ships, *Progress in Nuclear Energy*, vol. 3, 1962, pp. 306-308, Parlavantzias, P., La responsabilité des exploitants de navires nucléaires, *Revue hellénique de droit international*, vol. 15, 1962, pp. 87-95, Carbone, F., Navires nucléaires, lois nationales et droit européen, *Revue trim. de droit européen*, vol. 4, 3/1968, pp. 332-336, Szasz, P. The Convention on the Liability of Operators of Nuclear Ships, *Journal of Maritime Law and Commerce*, vol. 2, 3/1971, pp. 547-553.

addressed with particular regard to nuclear ships.¹³

Firstly, it was obvious that, while land-based nuclear reactors might easily mitigate possible dangers by locating them far from populated areas, nuclear ships were designed to sail into foreign harbours. Consequently, although the Installation State was expected to appropriately compensate a nuclear incident by its land-based nuclear reactor (situated in its territory), the licensing State would *not* be under such intermediate pressure where the incident occurred in a distant harbour, where a nuclear ship bearing its flag was anchored.

Secondly, there was a question about whether the future liability regime would be common to both civil and warships, although the latter represented the majority of nuclear-powered vessels at the time.

Thirdly, there was a question concerning whether the prospective international instrument would contain only rules applicable for operation of nuclear-powered vessels on the High Seas, or also govern issues of their entry to the ports of other than licensing States.

Facing these challenges, the Nineteenth Conference of the IMC adopted the draft of a convention that aimed to address the issue of liability of the *operators* of nuclear ships.¹⁴ This draft convention, which became later widely known as “*the Rijeka Draft*” in legal literature,¹⁵ provided for basic liability principles that were to be applied to operators of nuclear ships.

The Rijeka Draft became crucial for later developments in the field of international nuclear law. In the following year, a working group of 150 experts met under the auspices of the IAEA in order to discuss those issues of nuclear liability arising both from the prospective operation of the land-based nuclear reactors and nuclear ships.¹⁶ Here, the “*Panel of Legal Experts on Liability for Nuclear Propelled Ships*” was charged with reviewing the Rijeka Draft.¹⁷

Pursuant to the request of the Panel, the Secretariat of the International Atomic Energy Agency prepared a new draft convention. This became a subject of discussion at the Eleventh Session of the Diplomatic Conference on Maritime Law, held in Brussels, from 17th to 29th April 1961.¹⁸ Due to certain disagreements (mainly

13 Miller, C., op. cit., pp. 306-308.

14 Actually, the first ever draft of the prospective convention on the liability of the operators of nuclear ships was proposed by a subcommittee of the IMC at its meeting in Antwerp, in June, 1959. This draft was submitted to the Nineteenth Conference of the IMC for further discussion.

15 The text of the *Rijeka Draft* was reprinted in *Progress in Nuclear Energy*, vol. 3, 1962, pp. 321-325.

16 Könz, P., *Liability of Operators of Nuclear Ships: the 1961 Brussels Conference*, *Progress in Nuclear Energy*, vol. 3, 1962, p. 327-329.

17 The Panel was composed of experts from Albania, Argentina, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, Federal Republic of Germany, France, Greece, India, Italy, Japan, Norway, Poland, Romania, Sweden, Turkey, Ukrainian S.S.R., U.S.S.R., United Kingdom, United States and Yugoslavia. The report prepared by the panel was subsequently submitted to the Diplomatic Conference as the Document No. 3 and a revised version of the *Rijeka Draft* as the Document No. 3 – A.

18 Belli, G., *La conferenza diplomatica per una convenzione sulla responsabilità civile degli utilizzatori di navi nucleari*, *Diritto ed economia nucleare*, vol. 1, 1/1961, pp. 353-365, Colliard,

concerning the issues of jurisdiction and the establishment of a limitation fund), the Diplomatic Conference was resumed.¹⁹

The Diplomatic Conference was re-opened in Brussels on 14th May 1962, with its sole purpose to complete work on the international treaty regulating nuclear liability arising from the operation of nuclear-powered vessels.²⁰ Here, the Brussels Convention on the Liability of Nuclear Ships (thereinafter “the Brussels Convention”) was adopted. The Brussels Convention was opened for signature by the states represented at the Diplomatic Conference on 25th May 1962.

However, the impact of the Rijeka Draft was not limited to a single international agreement. On contrary, the Rijeka Draft influenced the content of a number of bilateral agreements concluded by the licensing States of nuclear ships with other States, in order to gain access to their ports. So, the United States concluded a series of so called “*Savannah Agreements*” to govern legal issues arising from the entry of the nuclear-powered cargo-passenger ship, “NS Savannah”, to foreign ports. The first of these agreements was concluded with Greece in June, 1962.²¹ In similar fashion, the Federal Republic of Germany concluded a series of bilateral agreements with regard to the nuclear-powered cargo ship “Otto Hahn”, with the first being concluded with the Netherlands in 1968.²²

Reflecting this wide impact of the Rijeka Draft, the 60th anniversary of its adoption offers a good opportunity to revisit the principles provided by the draft convention. This article also aims to show what impact the Rijeka Draft had for the subsequent development of international nuclear law worldwide.

2. PRINCIPLES PROVIDED BY THE RIJEKA DRAFT

The fact is, that at the time the Nineteenth Conference of the IMC assembled in Rijeka in September, 1959, there was already a common understanding on certain principles of nuclear liability. The first national legislation, addressing this issue, was adopted in Europe only few months after the Nineteenth Conference resumed its work

C., *La Convention de Bruxelles relative à la responsabilité des exploitants de navires nucléaires*, *Annuaire français de droit international*, vol. VIII, 1962, pp. 41-51, Könz, P., *The 1962 Brussels convention on the liability of operators of nuclear ships*, *American Journal of International Law*, vol. 57, 1/1963, pp. 101-120, Hoog, G., Henkmann, M., Wallas, I., *Die Konvention über die Haftung der Inhaber von Atomschiffen*, A. Metzner, Hamburg, 1970, pp. 18-20, Legendre, A., *La conférence diplomatique de Bruxelles de 1962*, *Droit maritime français*, vol. 39, 1962, pp. 575-578, Zaldivar, E., *Responsabilidad emergente de la explotacion de buques nucleares*, *Jornadas sobre derecho de la navegacion*, vol. 1, 1/1961, pp. 117-138.

19 Könz, P., *op. cit.*, pp. 102-104.

20 *loc. cit.*

21 Brown, J., *Nuclear Ship Savannah and the Law*, *University of Florida Law Review*, vol. 15, 2/1962, p. 300.

22 Beemelmans, H., *Internationalprivatrechtliche Fragen der Haftung für Reaktorschiffe*, *Rebels Zeitschrift für ausländisches und internationales Privatrecht*, vol. 41, 1/1977, pp. 19-20.

– in the Federal Republic of Germany,²³ the United Kingdom²⁴ and Switzerland.²⁵

These first national acts provided for principles of nuclear liability, which differ considerably from the liability principles under ordinary tort law: the channelling of liability to the operator, the liability limitation, mandatory insurance and the exclusive jurisdiction of the courts of the installation State. These principles were later reflected in two major international conventions, addressing the issues of nuclear liability; in both the Paris and Vienna Conventions.²⁶

However, both the Paris and Vienna Conventions explicitly included only land-based nuclear reactors²⁷ and excluded those nuclear reactors that are transportable.²⁸ Therefore, the Nineteenth Conference of the IMC had to address the challenge, to also apply these liability principles to those nuclear reactors used in maritime transport.

Before analysing the liability principles, as provided by the Rijeka Draft, certain remarks of substantive character must be heard:

Firstly, the Rijeka Draft never intended to establish a liability regime applicable to conventional ships merely transporting nuclear *material*. This issue had to be covered by provisions on liability transfer, later provided by the Paris Convention and the Vienna Convention.²⁹

Secondly, the Rijeka Draft did not address those issues of nuclear safety, arising from the operation of nuclear *ships*. These issues were left for other more specialised instruments of international law.³⁰ In this respect, it is interesting to note that these safety issues became a subject of discussion at the *Safety of Life at Sea (SOLAS) Conference* in London, which was held in London from 17th May to 17th June, 1960.³¹

Thirdly, the Rijeka Draft did not aspire to establish a universal framework, governing the entry of nuclear ships to foreign *ports*. The intention was merely to pave

23 Gesetz über die friedliche Verwendung der Kernenergie und den Schutz gegen ihre Gefahren vom 23. Dezember 1959

24 Nuclear Installations (Licensing and Insurance) Act 1959.

25 Bundesgesetz über die friedliche Verwendung der Atomenergie vom 23. December, 1959.

26 Hardy, M., Nuclear Liability: General Principles of Law and Further Proposals, British Yearbook of International Law, vol. 36, 1960, pp. 223-249.

27 Paris Convention, Art. I.a.ii., Vienna Convention, Art. I.1.j.

28 There is a slight difference between the wording of the Paris and the Vienna Conventions. While the Paris Convention excludes any reactors “comprised in any means of transport”, the Vienna Convention merely excludes those reactors, “with which a means of sea or air transport is equipped for use as a source of power.” This restrictive exclusion in the provision of the Vienna Convention reflected the then existing project of small nuclear reactors, intended to provide electricity in terrestrial rescue actions. Such nuclear reactors were intended to be operated stationary; however, they were to be equipped by a vehicle in order to be transported to a site of rescue operation.

29 The Convention relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material was adopted in 1971. The purpose of this convention was to ensure that the *operator* of a nuclear installation rather than the *owner* of a vessel will be exclusively liable for damage caused by a nuclear incident occurring in the course of maritime carriage of nuclear material. The Convention entered into force in 1975

30 Berman, W., Hydeman, L., International Control of the Safety of Nuclear-Powered Merchant Ships, Michigan Law Review, vol. 59, 2/1960, pp. 236-238.

31 *loc. cit.*

the way for further bi-lateral negotiations in this regard between concerned licensing States and the prospective port States.³²

Lastly, the Rijeka Draft aimed to address liability issues arising from nuclear ships, i.e. “any ship equipped for utilization of nuclear fuel”.³³

Consequently, the draft aimed to cover nuclear-propelled ships, i.e. those ships, where a nuclear reactor serves as a means of transport. However, other ships, also carrying a nuclear reactor were covered by the draft, e.g. those carrying a nuclear reactor serving for oceanographic purposes,³⁴ or carrying a reactor for the purpose of producing electricity (transportable nuclear power plants).

Therefore, the scope of the application of the Rijeka Draft was much broader than to only nuclear-propelled ships.

2.1. Absolute and exclusive liability of the operator

In its Article II, the Rijeka Draft provided that the operator of a nuclear ship should be held *absolutely* and *exclusively* liable for nuclear damage, upon proof that the cause was a nuclear incident involving the fuel of the nuclear ship or radioactive waste, produced in the ship. The principle of *absolute and exclusive liability of the operator* was subsequently adopted in three international conventions, adopted in following years in the field of nuclear liability (in the Paris,³⁵ Brussels³⁶ and Vienna Conventions³⁷).

In regard to the exclusive liability of the operator, the Nineteenth Conference of the IMC concluded that the interests of the victims of a possible marine nuclear incident would be best served by coalescing their rights to compensation upon one party. This model would obviate a multiplicity of actions, some of which might require proof of negligence. Consequently, the principle of exclusive liability of the operator leads to exoneration of all other potential liable subjects, such as manufacturer of nuclear reactor.³⁸

A further consideration for introducing exclusive liability of the operator was the desire to protect non-nuclear ship operators from potential high liability for nuclear damage even in instances where such nuclear damage would arise from the negligence of those in charge of the non-nuclear ship.³⁹ If the rule were otherwise, non-nuclear ship operators would be obliged to carry extended insurance covering this risk upon the seas. The result would be a considerable burden in increased marine insurance

32 Handrlica, J., Underground repositories, reprocessing facilities and floating nuclear power plants: liability issues revisited, *Journal of Energy & Natural Resources Law*, vol. 37, 2019, pp. 284-285.

33 Rijeka Draft, Article I.

34 Sözer, B., Liability of the Operators of Nuclear Ships according to Brussels Convention of 25th May, 1962, *Banka ve Ticaret Hukuku Dergisi*, vol. 7, 4/ 1974, p. 868.

35 Paris Convention, Article 6.b.

36 Brussels Convention, Article II.2.

37 Vienna Convention, Article II.5.

38 In practical terms, we are speaking here about the industry of the United States.

39 Thornton, W., op. cit., p. 11.

premiums with no particular benefit to the non-nuclear ship operator.⁴⁰

In this respect, the Rijeka Draft provided for two cases, when right of recourse was given to the operator *vis-à-vis* third persons. Firstly, in cases where the nuclear damage is the result of the act or omission of another, done with the *intent* to cause such damage, the operator of a nuclear ship would have right of recourse against the wrongdoer. This recourse was later reflected in the Brussels Convention.⁴¹ The other exception would apply where a right of indemnity is expressly provided by a contract. Also, this exception was later reflected in the Brussels Convention.⁴² In fact, the Brussels Convention also provided for a third exception,⁴³ which reflected the circumstance where the nuclear incident occurred because of a wreck-raising operation.

The Rijeka Draft also provided, that the operator of a non-nuclear ship should be entitled to recover from the operator of nuclear ship for nuclear damage suffered by the non-nuclear ship, even in instances where such damage was caused by the negligence of the non-nuclear ship. Hereby, the IMC wanted to reflect e.g. a situation, when a harbourmaster, or pier superintendent were to give negligent instructions to a nuclear ship during docking operation. In this respect, the IMC aimed at securing, the port authority will be barred from recovery of damages to the port and installations.⁴⁴ However, this provision was not reflected later by the Brussels Convention, as it was deemed as not necessary, due to the concept of absolute liability.⁴⁵

Further, the Rijeka Draft provided for certain *exonerations* from operator's liability. Consequently, the operator was to be exonerated from his liability with respect to nuclear damage caused by a nuclear incident directly due to an act of war, hostilities, civil war or insurrection. These exonerations titles were also later reflected in the provisions of the Brussels Convention.⁴⁶

Here, it is necessary to mention, that while the Rijeka Draft did effectively exonerate the manufacturers of nuclear reactors from any liability caused by their products by channelling the liability exclusively to the operators of nuclear ships, the risk of potential manufacturers liability was still felt.⁴⁷ Subsequently, the Brussels Convention provided⁴⁸ for an additional mechanism to *exclude* the manufacturers from potential liability by stating, that the treaty will continue to apply to any nuclear ship licensed for operation by any State while still a Contracting Party to this treaty, with respect to *any* nuclear incident occurring no later than twenty five years after such licensing.

40 *loc. cit.*

41 Brussels Convention, Article II.6.a.

42 Brussels Convention, Article II.6.c.

43 Brussels Convention, Article II.6.b.

44 Thornton, W., *op. cit.*, p. 11.

45 Govare, J., *Le droit maritime en matière nucléaire, Aspects de droit de l'énergie atomique*, vol. 1, 1965, p. 220.

46 Brussels Convention, Article VIII.

47 Könz, P., *The 1963 Brussels Convention on the Liability of Operators of Nuclear Ships*, p. 109.

48 Brussels Convention, Article XIX.

2.2. *Liability limitation and its coverage*

Further, the Rijeka Draft provided for limitation of operator's liability in its Article III. The principle of liability limitation has been known to international maritime law from other existing conventions (the Brussels International Convention for the Unification of Certain Rules Relating to the Limitation of the Liability of Owners of Sea-Going Vessels, the Brussels International Convention Relating to the Limitation of the Liability of Owners of Sea-Going Vessels). The liability limitation was considered as a *quid pro quo* for very strict liability requirements, provided for the operator. Therefore, the liability limitation was also provided later by the Paris⁴⁹ and Vienna⁵⁰ Conventions.

While the Rijeka Draft provided for liability limitation, the respective amount of the liability limit remained unresolved at the Nineteenth Conference of the IMC. Several proposals were made, with maximum limits of liability ranging from 100 million US \$ to 500 million US \$ (the later was the aggregate amount, provided at that time by the US legislation for the case where a nuclear incident was caused by the nuclear ship "Savannah").⁵¹ However, it was merely agreed that the liability limit must be high enough in order to make nuclear ships acceptable in all ports of the world.⁵² Consequently, the Article III.i. merely provided that "An operator of a nuclear ship shall in no circumstances be liable for more than in respect of any one nuclear incident." Thus, providing for the respective liability limit was left for further diplomatic discussions.⁵³

Further, the Rijeka Draft provided in its Article III.ii., that the operator maintains adequate insurance, specified by the licensing State.

The Brussels Convention reflected the proposals made by the Rijeka Draft, providing⁵⁴ for liability limit of 1,500 million francs in respect to any single nuclear incident, notwithstanding that the nuclear incident may have resulted from *any* fault or privity of that operator. Concerning the currency used, the Brussels Convention provided⁵⁵ that "the franc mentioned in paragraph 1 of this Article is a unit of account constituted by sixty-five and one half milligrams of gold of millesimal fineness nine hundred. The amount awarded may be converted into each national currency in round figures. Conversion into national currencies other than gold shall be effected on the basis of their gold value at the date of payment."

Consequently, the liability limit, as provided by the Brussels Convention was a floating one, depending on the actual value of gold. A similar approach was also chosen in the liability regime established under the Vienna Convention.⁵⁶ Concerning

49 Paris Convention, Article 7.b.

50 Vienna Convention, Article V.

51 Thornton, W., op. cit, p. 12.

52 *loc. cit.*

53 Bönthe, E., La limitation de la responsabilité des propriétaires et exploitants de navires conventionnelles et nucléaires, *Journal des Tribunaux*, vol 78, 4/1963, pp. 418.

54 Brussels Convention, Article III.1.

55 Brussels Convention Article III.4.

56 Vienna Convention, Article V.3.

mandatory insurance, the Brussels Convention basically copied the provision as provided by the Rijeka Draft and left the amount of insurance to be decided by the respective licensing State.⁵⁷

In this respect, it is worthy to note that the principle of liability limitation wasn't un-controversial during negotiations within the Eleventh Session of the Diplomatic Conference on Maritime Law. Several States defended the opinion that nuclear liability concerning the operation of warships should be *unlimited*. However, in the end it was agreed to extend the benefit of limiting liability to military vessels as well.⁵⁸

A further controversy was linked to the setting of actual liability limits. Basically, two trends were represented at the Eleventh Session, the difference mainly comprised in the relation between liability limits and the possibilities within insurance markets. One group of delegations, represented basically by the United States, supported establishing a high limit of liability *regardless* of the possibilities within the insurance market. The opposite view was represented mainly by the Scandinavian states, the Soviet Union and Liberia, which favoured setting the limit of liability regarding the capacities of the international insurance market and without involving the financial guarantees from the licensing state.⁵⁹

Subsequently, the Brussels Convention placed the liability limit much higher than the Paris Convention⁶⁰ and the later Vienna Convention.⁶¹ At the time of the Conventions' adoption and even for a decade after it,⁶² the limit was considered in excess of total coverage available in the existing insurance markets. Thus, the limit directly caused certain hesitation of the signatory States to ratify the Convention.⁶³

Finally, the Brussels Convention provided⁶⁴ for one circumstance under which the limitation was not applicable. This was for the circumstance where a nuclear ship flew the flag of a Contracting Party but wasn't licensed or authorized at the time of the incident.

2.3. Rules of jurisdiction

In Article VII, the Rijeka Draft provided rules on jurisdiction. These rules reflected a compromise between two conflicting desires. On one hand, there was desire to provide for an *exclusive* jurisdiction of the courts of the licensing State. This was a principle, which was later provided in both the Paris⁶⁵ and Vienna Conventions.⁶⁶ This principle clearly reflected the fact that insurance capacities are cumulated in the State where operation of the nuclear installation was permitted. Also, it reflected the

57 Brussels Convention Article III.2.

58 Könz, P., *The 1963 Brussels Convention on the Liability of Operators of Nuclear Ships*, p. 102.

59 *ibid.*, p. 103, and especially in notes 15, 17 and 18.

60 5 million Monetary Units of the European Currency Convention of 1958 as minimum and 15 million of Monetary Units as maximum.

61 5 million gold US \$ as minimum.

62 Szasz, P., *op. cit.*, p. 556.

63 *loc. cit.*

64 Brussels Convention, Article XV.2.

65 Paris Convention, Article XIII.

66 Vienna Convention, Article XI.

liability limitation and the subsequent need for the sole competence of one particular court.

However, the principle of exclusive jurisdiction was not deemed to be fully applicable *vis-à-vis* nuclear ships. Only a minority of the participants in the Nineteenth Conference of the IMC came from States that were presumed to launch and license nuclear ships. Therefore, a greater emphasis on the protection of the potential victims was offered and the Nineteenth Conference favoured potential victims having a possibility to claim in the court of their domicile.⁶⁷

Reflecting the above, the Rijeka Draft provided that actions for compensation shall be brought, at the option of the claimant, either by the courts of the licensing State, or in the courts of the State where the nuclear incident occurred. In the latter case, final judgements would become enforceable in the courts of the licensing State as soon as “the requirements of the law of the licensing State have been complied with”.⁶⁸ This jurisdictional provision was included to meet obvious objections from certain States, in particular from the United States.⁶⁹

Consequently, the rules of jurisdiction, as provided by the Rijeka Draft, were reflected in the provisions of the Brussels Convention. Here, it was provided that “the victim has the possibility to claim either by the court of the licensing state or by the court of the contracting party on whose territory the nuclear damage was sustained.”⁷⁰ An exemption was made concerning warships, where an exclusive jurisdiction of the licensing State was provided.⁷¹

3. IMPACT OF THE RIJEKA DRAFT FOR FURTHER DEVELOPMENT

The 60th anniversary of the Rijeka Draft represents a good opportunity to analyse the impact of principles adopted for the further development of international nuclear law.

On one hand, as analysed above, the Rijeka Draft strongly influenced the provisions of the Brussels Convention, adopted at the Eleventh Session of the Diplomatic Conference on Maritime Law in 1962. In this respect, it must be mentioned that the Brussels Convention was adopted by a relatively close vote of twenty-eight in favour from the fifty participants. Ten participating countries, including the only two states operating nuclear-powered vessels at the time, the United States and the Soviet Union, opposed the text of the Brussels Convention. The Scandinavian countries abstained, mainly on the ground of high limits of liability. Eight of the fifty

67 At the Eleventh Session of the Diplomatic Conference on Maritime Law, another proposal was made by France, Italy and the United Arab Republic, which provided for the jurisdiction of the licensing State and the coastal States within 50 or 100 miles of the place where the incident occurred. See Hardy, M. *op. cit.*, p. 784.

68 E.g. the right to be heard.

69 Thornton, W., *op. cit.*, p. 12.

70 Brussels Convention, Article X.1.

71 Brussels Convention, Article X.3.

delegations were absent at the time of the final vote.⁷²

The Brussels Convention was signed by 16 States.⁷³ Pursuant to its Article XXIV.1, it “shall come into force three months after the deposit of an instrument of ratification by at least one licensing State and one other State.” Nevertheless, only 3 of the signatory States have deposited their documents of ratification.⁷⁴ Further, 3 other States acceded to the Brussels Convention.⁷⁵ Due to the fact that no licensing State ever ratified it, the Brussels Convention failed to enter into force.

Consequently, the Brussels Convention is recently considered a “still-born” international convention. There were several reasons for this failure.⁷⁶ Firstly, while the subject of much expectation, nuclear propulsion failed to prove its ability to be a prospective means of marine propulsion. Actually, there have been only four nuclear-powered civil ships in operation.⁷⁷ The fate of the NS Savannah, which was launched only two months before the Nineteenth Conference of the IMC assembled in Rijeka, illustrates the entire issue.

NS Savannah was designed as a visually impressive luxury yacht, carrying thirty air-conditioned staterooms, a dining facility for 100 passengers, a lounge a swimming pool and a library. By many measures, the ship was a success. However, many of their competitors could accommodate several times the cargo of the NS Savannah. The crew was a third larger than comparable oil-fired ships and had to receive additional training after completing all requirements for conventional maritime licenses. The operating budget had to include maintenance of a separate shore organization to negotiate port visits.

Consequently, the US Maritime Administration decommissioned the NS Savannah in order to save costs in 1972. In fact, the only area where nuclear propulsion showed its long-term success, was the Arctic, where the Soviet Union proceeded to operate nuclear icebreakers for ocean and river transport. However, as Peider Könz had already correctly predicted in 1963,⁷⁸ the Soviet Union will have no interest in ratifying the Brussels Convention, unless expecting the nuclear icebreakers to enter foreign harbours.

Secondly, there was a very sensitive issue of the applicability of the liability

72 Könz, P., *The 1963 Brussels Convention on the Liability of Operators of Nuclear Ships*, p. 100.

73 Belgium, Republic of China (Taipei), Republic of Korea, Federal Republic of Germany, India, Indonesia, Ireland, Lebanon, Liberia, Malaysia, Monaco, Panama, the Netherlands, Philippines, Portugal, Republic, United Arab Republic and the Socialist Federal Republic of Yugoslavia.

74 Portugal (1968), the Netherlands (1974) and Lebanon (1975). Furthermore, the Republic of Surinam did so as a successor of the Netherlands in 1974.

75 Republic of Madagascar (1965), Democratic Republic of Congo (1967) and the Syrian Arab Republic (1975).

76 Handrlica, J., *The Brussels Convention on the Liability of Operators of Nuclear Ships: Expectations, Basic Principles and the Reasons of Failure*, *Czech Yearbook of Public and Private International Law*, vol. 5, 2014, pp. 121-138.

77 NS Savannah (licensed by the United States and operated 1959-1972), NS Mutsu (licensed by Japan and operated 1970-1992), NS Otto Hahn (licensed by the Federal Republic of Germany and operated 1968-1979) and NS Sevmorput (a nuclear-powered cargo ship with ice breaking abilities, licensed by the Soviet Union and operated since 1988).

78 Könz, P., *The 1963 Brussels Convention on the Liability of Operators of Nuclear Ships*, p. 109.

regime to nuclear warships. The arguments in favour of the inclusion of nuclear warships in the liability regime to be established were very pragmatic. Considering the development since the very beginning of the use of nuclear energy for the purposes of marine propulsion, there was a common understanding that, for many years to come, nuclear propulsion will be used chiefly for nuclear warships.⁷⁹ Because of this, nuclear warships were expected to represent a considerable part of future nuclear fleets. Therefore, they were considered a real hazard, against which protection should not only be available to the general public, but also to conventional shipping.

On the other hand, there were persuasive arguments against incorporation of nuclear warships under the umbrella of the planned liability regime. Firstly, the argument was presented that rules concerning warships have no place in a convention governing civil liability, since any accident involving these will primarily engage the international responsibility of States. Secondly, pursuant to another argument, incorporation of warships into the liability regime of an international convention would mean that Contracting Parties to the respective convention legalize the use of nuclear energy for military purposes.

And finally, problems of constitutional and administrative nature were pointed out, arising from potential submission of warships to foreign courts. Facing these very sensitive arguments, the Nineteenth Conference of the IMC left the issue unresolved, appending a recommendation to the Rijeka Draft, stating that “nothing in the draft is intended to authorise or require inspection of military ships or auxiliaries nor create a right to attach such ships.”⁸⁰

Further developments proved that the issue of inclusion of warships under the newly established liability regime became the subject of major controversy. The United States, together with the Soviet Union, vehemently opposed such inclusion at the Eleventh Session of the Diplomatic Conference on Maritime Law. However, this opposition had to face a serious bloc of votes led by the United Kingdom and supported by the delegations from the Asian, Latin American and Western European states (with the exception of Belgium).⁸¹ Thus, the warships were included into the liability regime, as established by the Brussels Convention.⁸² According to contemporary authors,⁸³ it was this inclusion that caused hesitation by both the United States and the Soviet Union to sign, or accede to the Brussels Convention.

Thirdly, neither the Rijeka Draft, nor the Brussels Convention addressed the issue of entry of nuclear ships into foreign ports. Consequently, in order to facilitate the entry of their nuclear ships into foreign ports, the licensing States were awaited to conclude separate bi-lateral agreements, governing issues of entry and stay of the ship in the respective port. Concluding such agreements was left to the discretion of the concerned licensing and port States.⁸⁴ From this perspective, the licensing States did

79 Hardy, M., op. cit., pp. 787-792, Könz, P., The 1963 Brussels Convention on the Liability of Operators of Nuclear Ships, pp. 109-111, Szasz, P., op. cit. sub, pp. 553-555.

80 Thornton, W., op. cit., p. 12.

81 Könz, P., The 1963 Brussels Convention on the Liability of Operators of Nuclear Ships, p. 108.

82 Brussels Convention, Article I.11.

83 Szasz, P., op. cit., p. 563, sub note 118.

84 Interestingly enough, the contemporary literature refers, that certain port States did not require

not considered ratification of the Brussels Convention as a necessary step to further facilitate developments of nuclear propulsion, as the required legal framework was provided by respective bi-lateral agreements.

And lastly, both the Rijeka Draft and the Brussels Convention reflected the model of civil liability for nuclear damage, i.e. liability of an operator. The Eastern bloc showed certain opposition to this concept, advocating that rather than the principles of civil liability, the responsibility of the State under international public law must be applied to nuclear incidents.

Consequently, the legal scholarship of the Eastern bloc criticized the principles of nuclear liability as reflecting the interests of the nuclear industry, rather than an interest in compensating potential victims.⁸⁵ This position basically precluded any participation of the Eastern bloc in the international conventions, providing for liability regime for nuclear damages. The only salient exception was the Socialist Federal Republic of Yugoslavia, which ratified the Vienna Convention on 12th August, 1977.

While the Brussels Convention is currently considered a “stillborn” international convention, the impact of the Rijeka Draft for international nuclear law was much broader. The liability principles provided by the Rijeka Draft were reflected in the provisions of bi-lateral agreements concluded by the licensing States (the United States and the Federal Republic of Germany), operating nuclear ships entering foreign ports. The first of these agreements was concluded between the United States and Greece in June of 1962,⁸⁶ in order to facilitate prospective entry of the nuclear-powered cargo-passenger ship “NS Savannah” to Greek ports. In the following years, the United States continued to conclude similar agreements with other port States.⁸⁷

The Federal Republic of Germany concluded the first of bi-lateral agreements on entry of the nuclear ship “Otto Hahn” with the Netherlands in October, 1968. Soon after, the Federal Republic of Germany concluded a similar agreement with Liberia (May, 1970), Portugal (January, 1971), Argentina (May, 1971) and finally Brazil (June, 1972).⁸⁸ These agreements basically followed the principles of the liability of

inclusion of any international convention for using their ports by a nuclear ship. In the late 1960s, the German nuclear ship “Otto Hahn” visited the ports of Morocco, Iran, Mauritania, Senegal and Togo without any existing bi-lateral agreements. See Nuclear Law Bulletin, 6/1970, p. 37.

85 Ioirish, A., *Atom i pravo, Mezdunarodnyie otnosheniya*, Moskva, 1969, pp. 171-173.

86 Brown, J., *op. cit.*, p. 300.

87 Boulanger, W., *International conventions and agreements on nuclear ships*, Nuclear Law for a Developing World, vol 5, 1969, pp. 179-185, Klarr, H., Loosch, R., *Rechtsfragen zum kommerziellen Einsatz der Savannah in deutschen Gewässern*, Atomwirtschaft, vol. 10, 10/1965, pp. 553-563, Kovar, R., *Les accords conclus au sujet du Savannah et la responsabilité civile des exploitants de navires nucléaires*, Annuaire française de droit international, vol. 11, 1965, pp. 783-809, Lucchini, L., Voelckel, M., *Colloque: Droit nucléaire et droit océanique*, 12-13 juin 1975, *Economica*, Paris, 1977, pp. 20-22, Pelzer, N., *Aktuelle internationalrechtliche Probleme der friedlichen Reaktorschiffahrt*, In: Bernhardt, R., Rudolf, W. (eds), *Die Schifffahrtswelt im gegenwärtigen Völkerrecht*, Berichte der Deutschen Gesellschaft für Völkerrecht, Karlsruhe, 1975, pp. 75-85.

88 Beemelmans, H., *Internationalprivatrechtliche Fragen der Haftung für Reaktorschiffe*, *Rebels*

the operator of nuclear ships, as provided by the Rijeka Draft and later by the Brussels Convention.

However, certain special rules were provided by these bi-lateral agreements for further specification of liability conditions. Thus, the Agreement between the Federal Republic of Germany and the Netherlands, adopted on 28th October, 1968,⁸⁹ provided for a liability limit of 400 million Deutschmark, which was at that time higher than the liability limit provided by the Brussels Convention.⁹⁰ Further, the Agreement also provided, that the Regional Court in the Haag is *exclusively* competent to deal with liability claims.⁹¹ The rather high liability limit of 400 million Deutschmark was also provided in the Agreement between the Federal Republic of Germany and Liberia, adopted on 27th May, 1970.⁹² However, this Agreement provided, that the claimant will have choice of jurisdiction between the court of the licensing State and the port State.⁹³ The agreements the Federal Republic of Germany concluded with Argentina (on 21st May, 1971⁹⁴) and Brazil (on 7th June, 1972⁹⁵) basically referred to the provisions of the Brussels Convention without any deviation.

Lastly, it is interesting to add that the Rijeka Draft also influenced national legislation. This was the case of the Netherlands, which was a signatory State to the Brussels Convention. In order to enlarge the rules of liability, as established by this Convention, also *vis-à-vis* prospective nuclear ships licensed by non-contracting States, the Netherlands issued an Act containing regulations on the liability of operators of nuclear ships in 1973 (*Wet houdende regelen inzake wettelijke aansprakelijkheid van exploitanten van nucleaire shepen*).⁹⁶ As of today, the Act is still valid.

4. CONCLUSIONS

“Will these ships be welcomed in the ports of the world or will they, like the fable “Flying Dutchman”, be destined to sail the high seas until the day of the judgement, barred from entering port?”⁹⁷ The question posed by Commander William H. Thornton, when reflecting the Rijeka Draft in 1960, can clearly be answered today. Civil nuclear ships were a failure. They proved not to be commercially attractive and, consequently, all interest in multiplying civil nuclear fleets faded. The only field where nuclear propulsion proved successful was Arctic transport. However, as the nuclear icebreakers did not enter foreign ports, there has been never a need to cover them by a respective international convention.

The Rijeka Draft, as adopted at the Nineteenth Conference of the IMC 60 years

Zeitschrift für ausländisches und internationales Privatrecht, vol. 41, 1/1977, pp. 19-23.

89 BGBl. 1969 II 1121.

90 Beemelmans, H., op. cit., p. 20.

91 *loc. cit.*

92 BGBl. 1971 II 953.

93 Beemelmans, H., op. cit., p. 22.

94 BGBl. 1972 II 68.

95 BGBl. 1974 II 685.

96 Netherlands ratified the Brussels Convention in 1974.

97 Thornton, W., op. cit., p. 9.

ago, was a product of legal foresight. In the field of international nuclear law, the Rijeka Draft is a salient example of an instrument that does not merely react to an incident that has already happened, but aims to provide legal framework that facilitates relations arising by potential incidents in the future. Despite the fact, the Rijeka Draft failed to provide a base for a working multilateral liability framework, it must be viewed as a product of legal futurism, awaiting certain technological developments in the future and paving the way for its realisation.

Most recently, the discussions on further development of nuclear power in naval transport are again *en vogue*. The Russian Federation and China announced their plans to operate transportable nuclear power plants and to offer them to other States on a commercial basis. Such developments will again⁹⁸ trigger the liability principles, adopted by the Rijeka Draft, as special bi-lateral agreements will be needed to facilitate the operation of such transportable installations.

Consequently, the Rijeka Draft proved to be an instrument that had a broad impact on international nuclear law over the last decades. Potentially, and depending on further developments, the principles adopted will also be reflected in the future. Therefore, the Draft deserved a *requiem* to be made in the year of its 60th anniversary.

BIBLIOGRAPHY

1. Beemelmans, Hubert, Internationalprivatrechtliche Fragen der Haftung für Reaktorschiffe, *Rabels Zeitschrift für ausländisches und internationales Privatrecht*, vol. 41, 1/1977, pp. 1-38.
2. Belli, Giovanni, La conferenza diplomatica per una convenzione sulla responsabilità civile degli utilizzatori di navi nucleari, *Diritto ed economia nucleare*, vol. 1, 1/1961, pp. 353-365.
3. Berman, William, Hydeman, Lee, International Control of the Safety of Nuclear-Powered Merchant Ships, *Michigan Law Review*, vol. 59, 2/1960, pp. 233-258.
4. Bernaerts, Arnd, Die Haftung der Inhaber deutscher Reaktorschiffe – Brüsseler Reaktorschiffs-Übereinkommen, *Atomgesetz, Bilaterale Übereinkommen*, Georg-August Universität, Göttingen, 1977.
5. Bönthe, Eugène, La limitation de la responsabilité des propriétaires et exploitants de navires conventionnelles et nucléaires, *Journal des Tribunaux*, vol 78, 4/1963, pp. 418-422.
6. Boulanger, Werner, International conventions and agreements on nuclear ships, *Nuclear Law for a Developing World*, vol 5, 1969, pp. 179-185.
7. Brown, James, Nuclear Ship Savannah and the Law, *University of Florida Law Review*, vol. 15, 2/1962, pp. 299-325.
8. Carbone, Ferdinando, Navires nucléaires, lois nationales et droit européen, *Revue trim. de droit européen*, vol 4, 2/1968, pp. 332-349.
9. Chaveau, Pierre, Les navires nucléaires á la Conférence de Rijeka, *Semaine juridique*, 1960, pp. 1529-1530.
10. Colliard, Claude-Albert, La Convention de Bruxelles relative á la responsabilité des exploitants de navires nucléaires, *Annuaire français de droit international*, vol. VIII, 1962, pp. 41-64.
11. Dagna, Camilla, La responsabilità dell'armatore di navi nucleari, *Diritto ed economia nucleare*, vol. 1, 1959, pp. 267-272.

⁹⁸ Handrlica, J., Transportable nuclear power plants: an enigma of international nuclear liability law, *Journal of World Energy Law & Business*, vol. 12, 2019, pp. 590-612.

12. Fergusson, Ernst, Liability for nuclear powered vessels: the work toward an international convention – some problems and principles”, *Atomic Energy Law Journal*, vol. 2, 1/1960, pp. 25-35.
13. Filipović, Velimir, Problemi odgovornosti za nuklearne štete i Riječka konferencija CMI, *Naša zakonitost*, 1960, pp. 179-186
14. Filipović, Velimir, Riječka konferencija međunarodnog pomorskog odbora (CMI-a) 1959. I odgovornost poduzetnika nuklearnih brodova. *Zbornik Pravnog Fakulteta u Zagrebu*, vol. 52, 6/2002, pp. 1181-1190.
15. Govare, James-Paul, Le droit maritime en matière nucléaire, *Aspects de droit de l'énergie atomique*, vol. 1, 1965, pp. 219-222.
16. Handrlica, Jakub, The Brussels Convention on the Liability of Operators of Nuclear Ships: Expectations, Basic Principles and the Reasons of Failure, *Czech Yearbook of Public and Private International Law*, vol. 5, 2014, pp. 121-138.
17. Handrlica, Jakub, Novotná, Marianna, The Vienna convention on civil liability for nuclear damage: past, evolution and perspectives, *Juridical Tribune – Tribuna Juridica*, vol. 8, 2018, pp. 48-63.
18. Handrlica, Jakub, Underground repositories, reprocessing facilities and floating nuclear power plants: liability issues revisited, *Journal of Energy & Natural Resources Law*, vol. 37, 2019, pp. 263-288.
19. Handrlica, Jakub, Transportable nuclear power plants: an enigma of international nuclear liability law, *Journal of World Energy Law & Business*, vol. 12, 2019, pp. 590-612.
20. Hardy, Michael, Nuclear Liability: General Principles of Law and Further Proposals, *British Yearbook of International Law*, vol. 36, 1960, pp. 223-249.
21. Hardy, Michael, The liability of operators of nuclear ships, *International and Comparative Law Quarterly*, vol. 12, 3/1963, pp. 778-788.
22. Hoog, Günther, Henkmann, Marie-Louise, Wallas, Ingo, *Die Konvention über die Haftung der Inhaber von Atomschiffen*, A. Metzner, Hamburg, 1970.
23. Ioirish, Abram, *Atom i pravo, Mezdunarodnyie otnosheniya*, Moskva, 1969.
24. Jabel, Heinrich, Zum Haftungsbeschränkungsfond der Brüsseler Atomschiffskonvention, In: *Wirtschaft und Atomenergie im internationalen Recht. Institutsfestgabe für Georg Erler*, Georg-August Universität, Göttingen, 1965, pp. 257-269.
25. Klarr, Heinrich., Loosch, Rudolf., *Rechtsfragen zum kommerziellen Einsatz der Savannah in deutschen Gewässern*, *Atomwirtschaft*, vol. 10, 10/1965, pp. 553-563.
26. Könz, Peider, Liability of Operators of Nuclear Ships: the 1961 Brussels Conference, *Progress in Nuclear Energy*, vol. 3, 1962, pp. 327-329.
27. Könz, Peider, The 1962 Brussels convention on the liability of operators of nuclear ships, *American Journal of International Law*, vol. 57, 1/1963, pp. 101-120.
28. Kovar, Robert, Les accords conclus au sujet du Savannah et la responsabilité civile des exploitants de navires nucléaires, *Annuaire française de droit international*, vol. 11, 1965, pp. 783-809.
29. Legendre, Alexandre, La conférence de Rijeka, *Droit maritime français*, vol. 36, 1959, pp. 707-709.
30. Legendre, Alexandre, La conférence diplomatique de Bruxelles de 1962, *Droit maritime français*, vol. 39, 1962, pp. 575-578.
31. Lilar, Albert, Van den Bosch, C., *Le Comité Maritime International 1897-1972 / International Maritime Committee 1897-1972*.
32. Lucchini, Laurent, Voelckel, Maurice, *Colloque: Droit nucléaire et droit oceanique*, 12-13 juin 1975, Economica, Paris, 1977.
33. Miller, Carl, Problems of international legislation regulating the liability of operators of nuclear ships, *Progress in Nuclear Energy*, vol. 3, 1962, pp. 306-312.
34. OECD, *Nuclear Power for Merchant Ships*, *OECD Observer*, 1970, pp. 27-37.
35. Ost, François, Les navires à propulsion nucléaire et le droit, *Journal des tribunaux*, 1/1963,

- pp. 15-17.
36. Parlavantzas, Petros, La responsabilité des exploitants de navires nucléaires, *Revue hellénique de droit international*, vol. 15, 1962, pp. 87-95
 37. Pelzer, Norbert, Aktuelle internationalrechtliche Probleme der friedlichen Reaktorschiffahrt, In: Bernhardt, Rudolf, Rudolf, Walter (eds), *Die Schiffahrtsfreiheit im gegenwärtigen Völkerrecht*, *Berichte der Deutschen Gesellschaft für Völkerrecht*, Karlsruhe, 1975, pp. 75-85.
 38. Seaver, Robert, The impact of nuclear propulsion on admiralty and shipping law, In: American Bar Association (ed), *Section of Negligence, Insurance and Compensation Law, Proceedings 1959-1960*, American Bar Center, Chicago, 1960, pp. 178-188.
 39. Sözer, Bulent, Liability of the Operators of Nuclear Ships according to Brussels Convention of 25th May 1962, *Banka ve Ticaret Hukuku Dergisi*, vol. 7, 4/ 1974, p. 867-900.
 40. St. George, William, International Operational Regulations and the Nuclear-Powered Ship, *JAG Journal*, vol. 8, 3/1959, pp. 20-25.
 41. Szasz, Paul, The convention on the liability of operators of nuclear ships, *Journal of Maritime Law and Commerce*, vol. 2, 3/1971, pp. 541-570.
 42. Thornton, William, The Nuclear Ship in the International Community, *JAG Journal*, vol. 9, 3-4/1960, pp. 9-13.
 43. Zaldivar, Enrique, Responsabilidad emergente de la explotacion de buques nucleares, *Jornadas sobre derecho de la navegacion*, vol. 1, 1/1961, pp. 117-138.

Jakub Handrlica*

Sažetak

RIJEČKI NACRT KONVENCIJE O ODGOVORNOSTI PODUZETNIKA-BRODARA NUKLEARNIH BRODOVA: KASNI REKVIJEM

U Rijeci je pred šezdeset godina od 20. do 26. rujna 1959. održana devetnaesta konferencija Međunarodnog pomorskog odbora (*Comité Maritime International*). Suočavajući se s izazovima proizašlim iz korištenja nuklearne energije u pomorskom prijevozu (posebice vezano uz korištenje nuklearnih reaktora kao izvora prijevoza u putničkim i vojnim brodovima, na konferenciji je usvojen jedan nacrt, čiji je cilj bio dotaći se odgovornosti poduzetnika-brodara nuklearnih brodova. Taj je nacrt reflektirao činjenicu da se odgovornost poduzetnika-brodara nuklearnih brodova znatno razlikuje od odgovornosti koja proizlazi iz nuklearnih reaktora smještenih na čvrstom tlu. Ovaj nacrt, koji je kasnije u pravnoj literaturi postao poznat kao „Riječki nacrt”, predvidio je temeljna načela odgovornosti za poduzetnike-brodare nuklearnih brodova. Odigrao je i veliku ulogu u kasnijem razvoju međunarodnog nuklearnog prava, posebice pri usvajanju briselske Konvencije o odgovornosti poduzetnika-brodara nuklearnih brodova na jedanaestoj sjednici Diplomatske konferencije za pomorsko pravo 1962. godine. Utjecao je i na sadržaj nekih drugih bilateralnih sporazuma. Šezdeseta obljetnica Riječkog nacrta izvrsna je prilika za preispitivanje njegovih načela kao i njegovog utjecaja na daljnji razvoj međunarodnog nuklearnog prava.

Ključne riječi: *odgovornost za nuklearnu štetu; nuklearni brodovi; međunarodno nuklearno pravo; međunarodno pomorsko pravo; načela odgovornosti.*

Zusammenfassung

RIJEKA-ENTWURF DES NUKLEARSCHIFF- ÜBEREINKOMMENS: EIN SEHR SPÄTES REQUIEM

Die Neunzehnte Konferenz des Internationalen Seeschiffahrtssausschusses (*Comité Maritime International*) wurde vor sechzig Jahren vom 20. bis zum 26. September 1959 in Rijeka gehalten. Als Antwort auf die Herausforderungen bezüglich

* Dr. sc. Jakub Handrlica, izvanredni profesor, Pravni fakultet, Karlovo sveučilište u Pragu, jakub.handrlica@prf.cuni.cz.

der Nuklearenergienutzung in der Seeschifffahrt (insbesondere bezüglich der Nutzung von Kernreaktoren als Transportquelle für sowohl Passagier- als auch Militärschiffe), nahm die Konferenz einen Entwurf an, mit dem Ziel, die Haftung der Betreiber von Nuklearschiffen anzusprechen. Dieser Entwurf widerspiegelte die Tatsache, dass die Haftung, die sich aus Nuklearschiffen ergibt, sich von der mit der Betreibung von landgestützten Kernreaktoren verbundenen Haftung wesentlich unterscheidet.

Dieser Entwurf, der später auch als „Rijeka-Entwurf“ in der Rechtsliteratur bekannt wurde, hat grundlegende Haftungsgrundsätze für Betreiber der Nuklearschiffe vorgesehen. Der Rijeka-Entwurf spielte eine große Rolle bei späteren Entwicklungen im Bereich des internationalen Nuklearrechtes, insbesondere bei der Annahme des Brüssel-Übereinkommens über die Haftung von Betreiber der Nuklearschiffe auf der Elften Tagung der Diplomatischen Seerechtkonferenz in 1962. Er hat aber auch den Inhalt von einigen anderen bilateralen Übereinkommen beeinflusst. Das sechszigste Jubiläum des Rijeka-Entwurfs bietet die Gelegenheit an, die Grundsätze des Entwurfs sowie auch sein Einfluss auf weitere Entwicklungen des internationalen Nuklearrechtes erneut zu überprüfen.

***Schlüsselwörter:** Nuklearhaftung; Nuklearschiffe; internationales Nuklearrecht; internationales Seerecht; Haftungsgrundsätze.*

Riassunto

IL DISEGNO FIUMANO DELLA CONVENZIONE SULLA RESPONSABILITA' DEGLI OPERATORI DELLE NAVI NUCLEARI: UN TARDO *REQUIEM*

Sessant'anni fa dal 20 al 26 settembre del 1959 si tenne a Fiume la novantesima Conferenza del Comitato marittimo internazionale (*Comité Maritime International*). Nell'approcciarsi alle sfide derivanti dai piani contemporanei di usare l'energia nucleare nel trasporto marittimo (in particolare di usare i reattori nucleari quale fonte per il trasporto sia di navi civili, che militari), la Conferenza adottò un disegno di convenzione avente lo scopo di porre in rilievo la questione della responsabilità degli operatori di navi nucleari. Il disegno di convenzione manifestò il fatto che le questioni della responsabilità derivanti dalle navi nucleari differiscono considerevolmente rispetto a quelle questioni derivanti dalle operazioni dei reattori nucleari su terraferma. Tale disegno di convenzione, che successivamente divenne noto nella letteratura giuridica come “*the Rijeka Draft*”, offrì i principi fondamentali in materia di responsabilità che si sarebbero dovuti applicare agli operatori delle navi nucleari. Il “*Rijeka Draft*” divenne di importanza cruciale per i successivi sviluppi nel campo del diritto nucleare internazionale ed in specie per l'adozione della Convenzione di Bruxelles sulla responsabilità delle navi nucleari all'undicesima sessione della conferenza diplomatica sul diritto marittimo nel 1962. Ad ogni modo, esso influenzò

anche il contenuto di alcuni altri accordi bilaterali. Il sessantesimo anniversario del “*Rijeka Draft*” offre una buona opportunità per rivisitare i principi offerti dal disegno di convenzione, come anche per rivisitare l’impatto di questo disegno sul futuro sviluppo del diritto nucleare internazionale.

Parole chiave: *responsabilità; navi nucleari; diritto internazionale nucleare; diritto marittimo internazionale; principi di responsabilità.*

