Acta Universitatis Danubius

JURIDICA

The Legal Background and Status of Macedonia as a Non-Nuclear-Weapon State (NNWS) in International Relations

Stefani Stojchevska[1]

Abstract: The objective of this research paper is to analyze the legal background and status of Macedonia as a non-nuclear-weapon state in global nuclear-related affairs due to recent geopolitical fluctuations in arms control and disarmament. Prior work addressing this research topic is relatively scarce apart from loosely related government reports and academic papers. The research approach includes legal commentaries on Macedonia's nuclear-related legislation and policy, as well as ratified international treaties. Results derived from this research imply that Macedonia must reinforce its position in nuclear politics and its potential use of nuclear energy, which should be of further interest to scholars and researchers working in this field of study. The value of this paper lies in its distinctive research topic for Macedonian academic literature being comprehensively analyzed to further reach international interests.

Keywords: International Law; Nuclear Weapons; Geopolitics

1. Introduction

It is a universal value that each country should not only enjoy the right to a peaceful use of nuclear energy, but also shoulder the responsibility and obligation of

[1] PhD Candidate and Teaching Assistant of International Law, Faculty of Law, South East European University, Tetovo, Republic of North Macedonia, Address: 335 Ilindenska St., 1200 Tetovo, Republic of North Macedonia, Corresponding author: s.stojchevska@seeu.edu.mk.

preventing nuclear proliferation, maintaining nuclear safety and nuclear security (International Atomic Energy Agency, 2022, p.39). The idea for nuclear energy in Macedonia has its legacy back in the Former Socialist Federal Republic of Yugoslavia (SFRY), where authorities at the time had planned to build several nuclear reactors (Gareva & Hadji-Janev, 2012, p.5). Historically, Yugoslavia produced chemical weapons and pursued both nuclear weapons and ballistic missiles. However, none of the successor States – including Macedonia – have weapons of mass destruction or programs for their development (NTI, 2023). On the other hand, the contrasting idea of turning the Balkan Peninsula into a nuclear weapon-free zone (NWFZ) is not new, considering that such geopolitical establishment was first proposed by Romania on September 10th, 1957, where over the following years, Bulgaria, Romania, and Yugoslavia continued from time to time to underline the need for a Balkan NWFZ in various forums (Andrikos, 1985, p.29). Theoretically speaking, NWFZ in public international law serve several purposes of arms control which are often overlooked: in addition to reducing the actual numbers of weapons deployed, NWFZ can contribute to effective crisis prevention and crisis management, and they can make it possible to limit destruction in the event of actual hostilities (Klick, 1987, p.111). Moreover, a Balkan NWFZ as a multinational conceptualization did not contradict any of the principles prescribed within the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), as stipulated in Article VII: *"Nothing in this Treaty affects the right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories*" (Cronberg, 2024). Regardless of the absence of legislative barriers, as well as the relevant political, strategic and economic benefits of establishing a Balkan NWFZ, due to change of world politics after the fall of Berlin wall and the demise of the former Soviet Union in the early 1990s, the idea is unlikely to be realized recently (Moorthy, 2006, p.11). Although, one must remain optimistic toward the potential realization of a Balkan NWFZ in the future when considering the unpredictability of global nuclear affairs, as well as the prospects of States interested in acquiring nuclear weapons in the attempt to strengthen their national and military power, thus appearing less vulnerable to current atomic forces.

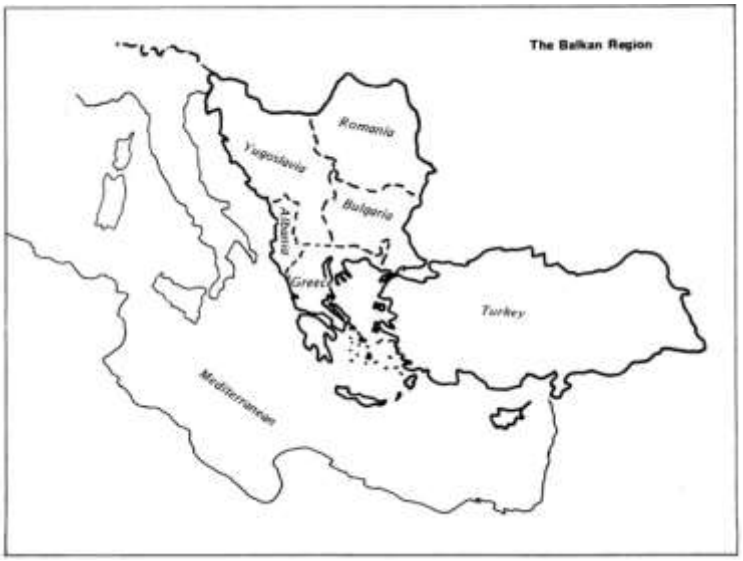

Figure 1. The Balkan Region

Note. The map represents the Balkan region from 1941 to 1991, where Macedonia is part of the Former Socialist Federal Republic of Yugoslavia (SFRY). Adapted from "The Balkans: a weapon free zone?" (Rydell & Platias, 1982, p.57)

Giving a special emphasis to Macedonia as one of the successor States of Yugoslavia within this context, it would seem that the installation of a nuclear power plant within its domestic borders would give more credit for such a small country. Besides economic considerations, building a Macedonian nuclear power plant would expectedly include political considerations as well. However, regarding its current economic capacities, it is hard to believe that Macedonia alone would have the capacity to succeed in realizing this potential scenario (Gareva & Hadji-Janev, 2012, p.6), as the 2023 NTI Index accessed that Macedonia is among the 153 countries that have less than 1 kilogram of weapons-usable nuclear materials or no weapons-usable nuclear materials (NTI Nuclear Security Index, 2023, p.7), even though Macedonia always has the possibility of seeking partnership willing to support such issue (Gareva & Hadji-Janev, 2012, p.6). Nevertheless, the use of nuclear energy is a complex question for small countries like Macedonia, mainly due to the demand of existence of nuclear authority in the field of ionization and radiation, as well as nuclear law (Ampovska, 2013, p.20). When questioning whether Macedonia would need nuclear energy, it was not until recently that Macedonia, along with other Balkan countries, expressed a strong interest to invest in their own nuclear power plants. Such ambition is further supported by the Macedonian government preparing

a Strategy for the Development of the Energy Sector until 2030, in which it also proposes a nuclear option for the country (Analytica, 2010, p.1). On that account, it is important to further analyze Macedonia's current legislation and policy inaugurated within the context of nuclear weapons.

2. Macedonia's Domestic Legislation and Policy towards Nuclear Weapons

Following the dissolution of Yugoslavia, primary issues concerning nuclear weapons in Macedonian policy were first mentioned in Opinion No.6 on the Recognition of the Socialist Republic of Macedonia by the European Community and its Member States. Namely, in response to the question whether Macedonia was willing to abide by all the undertakings given on disarmament and the non-proliferation of nuclear weapons:

> *Yes, the Republic of Macedonia abides by all the relevant undertakings given on disarmament, the non-proliferation of nuclear weapons, security and territorial stability* (Trifunovska, 1994, p.492).

In addition to undertakings given to nuclear security and territorial stability, it is worth mentioning that in Macedonia there are competent nuclear authorities represented by the Department for Radiation Safety established by the Law on Protection against Ionizing Radiation and Safety of July 4th 2002 (Ampovska, 2013, p.20). The objectives of the Law on Protection against Ionizing Radiation and Safety (Article 1-a) are:

- ***a.*** *To provide for the adequate protection of population, society and the environment, against the harmful effects of ionizing radiation and for the safety of ionizing radiation sources and radioactive waste and the safety and the security of radioactive sources;*
- ***b.*** *To allow for the beneficial and* ***peaceful uses of nuclear energy*** *and its applications; and*
- ***c.*** *To ensure that the Republic of Macedonia fulfills its obligations pursuant to the* ***ratified international agreements****;*

By the same token, Macedonian criminal law also proscribes two particular articles which consequentially address nuclear weapons in terms of terrorist organizations

and terrorism as separately defined crimes. According to Article 394-a – *Terrorist organization* – of the 1996 Criminal Code of the Republic of Macedonia:

> *(1) Any person who organized a group, gang or other criminal enterprise to commit the criminal offences of … **trade in nuclear weapons**, biological, chemical weapons and other types of weapons and hazardous materials, **dispersal of hazardous radioactive**, poisonous and other dangerous **substances … or causing explosions** … with an intention to endanger the lives and bodies of the citizens and create a feeling of insecurity and fear, shall be sentenced to imprisonment of at least eight years.*

According to Article 394-b – *Terrorism* – of the 1996 Criminal Code of the Republic of Macedonia:

> *(1) Any person who commits one or more crimes of … **procurement or use of nuclear weapons**, biological, chemical and other types of weapons and hazardous materials, as well as research in the direction of … **release of dangerous radioactive**, poisonous and other dangerous **substances or causing a fire or an explosion** … with the intention to endanger human life and body and to create feeling of insecurity or fear among citizens, shall be sentenced to imprisonment of at least ten years or life imprisonment.*

Giving consideration to its national security being potentially threatened by acts of terrorist organizations and terrorism through the means of trading, procuring and/or using nuclear weapons, Macedonia's Ministry of Defence has recently prepared the 'Long-Term Defense Capabilities Development Plan 2023-2032', where the unites will be equipped with funds and equipment that will ensure the improvement and development of the individual and collective capacities and capacities for protection against chemical, biological, radiological and nuclear (CBRN) weapons, as well as the development of CBRN reconnaissance capabilities (Ministry of Defence, 2023, p.23-24). Nevertheless, it is widely accepted for Macedonia's domestic legislation and policy in further accordance with international treaties and organizations to be sufficient enough to guarantee, or at the very least, strengthen its national security.

3. Ratified International Treaties and Membership in International Organizations

Concerning nuclear disarmament and arms control, the multilateral counter-proliferation regime aims to prevent the proliferation of nuclear weapons beyond recognized nuclear-weapon states (NWS) (Boothby & Heintschel von Heinegg, 2022, p. 197). In that respect, some of the international treaties and organizations analyzed in this part of the research paper are the NPT, the Treaty on the Prohibition of Nuclear Weapons (TPNW), the Safeguard Agreements with the International Atomic Energy Agency (IAEA), as well as the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) characterized with the (lack of) support by Macedonia as a current NNWS.

3.1. The Treaty on the Non-Proliferation of Nuclear Weapons (NPT)

Macedonia is considered a State Party of the NPT by succession from Yugoslavia, which had previously signed the NPT back in 1968 soon after it was open for signature and ratified it in the National Assembly in 1970, respectively (Miljkovic, 2024). As Ambassador Vratusa of Yugoslavia put it, his country voted for it *"in the sincere hope and belief that it leads us closer to disarmament and creates conditions for sharing without discrimination, the unlimited possibilities of atomic energy for peaceful purposes"* (United States Congress, 1968, p.208). However, many Balkan nations – including Yugoslavia – had been dissatisfied with the international regime for nuclear non-proliferation and sharply criticizing the NPT for being discriminatory (Rydell & Platias, 1982, p.58). On this occasion, the Government of Yugoslavia prior to the signing of the NPT had been exerting efforts, together with other countries, to eliminate some of its deficiencies in order to make it more acceptable to the NNWS (Pilat & Pendley, 1990, p.210). It recalls the complaint of the delegate from Yugoslavia at the time that the Security Council Resolution was adopted, when he stated that *"one would simply be hypocritical not to see that the guarantees offered in the pledge, particularly by the three nuclear powers, do not raise the level of security for the nonnuclear powers one iota"* (United States Congress, 1968, p.360). Moreover, such statement was reinforced in the debate on disarmament in the first U.N. political committee by Danilo Lekic, Yugoslav permanent representative, who advocated an urgent resumption of work in general and total disarmament:

> *"In the Yugoslav representative's view, to achieve a lasting and effective agreement on nonproliferation of nuclear armament it is indispensable to insure guarantees to nonatomic forces. On the other hand, guarantees given in the form of the so-called nuclear umbrella would not suit many countries, Lekic said, since these guarantees could in many ways assume the character of small countries depending on great powers. Guarantees to countries which do not possess nuclear weapons would in this phase be only a temporary and transitional measure, since the true guarantees could be insured only through nuclear disarmament"* (Foreign Broadcast Information Service, 1966, NN5).

Whether NWS or NNWS, nuclear energy should be available for peaceful purposes to all Parties of the NPT (Boon, Huq & Lovelace, 2021, p.3), although according to Article VI of the NPT, NNWS enjoy an intangible right to benefit from exploiting peaceful uses of nuclear technology. On the other hand, they are obligated not to divert nuclear energy from peaceful uses to nuclear weapons or other nuclear explosives (Negm, 2009, p.52). Yugoslavia threatened to leave the NPT regime at the 1975 review conference on the ground that the nuclear powers were not living up to their part of the bargain (Sharp, 1993, p.30). More importantly, on the basis of industrial capacity, wealth and experience with nuclear technology, and access to fissionable materials, Yugoslavia was among the countries that could develop nuclear weapons in less than ten years (United States Congress, 1968, p.244-245), albeit in a category that could develop nuclear weapons capability at a lower level, not a substantial number and perhaps not sophisticated delivery systems and perhaps on a longer time scale, one or the other or all of these (United States Congress, 1968, p.321).

Table 1. Nuclear Reactors in the Balkans (1980/1981)

Nuclear Reactors in the Balkans

	Current and past	*Planned*
Romania	1 research reactor (3 megawatts)	9 (600 megawatts each)
Bulgaria	2 power reactors (408 megawatts each) 1 research reactor (1 megawatt)	2 (408 megawatts each)
Yugoslavia	3 research reactors (all < 7 megawatts)	3 (1,000 megawatts each) 2 (1,200 megawatts each) 1 (632 megawatts)
Greece	1 research reactor (5 megawatts)	1 (600 megawatts) 2 (900 megawatts each)
Turkey	3 research reactors (< 6 megawatts)	2 (1,000 megawatts each) 1 (600 megawatts)
Albania	0	0

Sources: Nuclear Assurance Corporation, "Nuclear Megawatt Status Report," Oct. 1981 (Atlanta: Nuclear Assurance Corporation, 1981); International Atomic Energy Agency, *Research Reactors in Member States,* 1980 ed. (Vienna: International Atomic Energy Agency, 1980); U.S. Congress, Senate Committee on Governmental Affairs, *Nuclear Proliferation Factbook* (Washington, D.C.: U.S. Government Printing Office, Sept. 1980).

Note. Adapted from "The Balkans: a weapon free zone?" (Rydell & Platias, 1982, p.58)

These numbers represent ambitious nuclear development plans, especially in the Warsaw Pact countries (Rydell & Platias, 1982, p.58). Yugoslavia already possessed three research reactors, each < 7 megawatts, while planning 3 research reactors with the capacity of 1,000 megawatts each, 2 research reactors with the capacity of 1,200 megawatts each and 1 research reactor with the capacity of 632 megawatts, respectively. When hypothesizing for one or more of the planned research reactors being built on Macedonian soil, the current need for nuclear energy would be satisfied.

3.2. The Treaty on the Prohibition of Nuclear Weapons (TPNW)

Macedonia participated in the TPNW negotiations in 2017, but did not cast a vote on the adoption of the Treaty. It has consistently voted against the annual United Nations General Assembly (UNGA) resolutions on the TPNW, including in 2023 (Nuclear Weapons Ban Monitor, 2023), where the address by President Pendarovski

at the General Debate of the 78th Session of the UNGA also argued nuclear weapons issues:

> *"…it was not by accident that recently the Secretary General warned that the risk of a nuclear disaster is today at the highest level since the end of the Cold War. This alert coming from the highest level of the Organization should be a wake-up call for all reasonable political leaders, for a global mobilization to preserve peace – undoubtedly, the biggest value of humanity…"* (Republic of North Macedonia President, 2023)

Macedonia was one of the co-sponsors for the 2023 UNGA resolution on the TPNW, which called upon 'all States that have not yet done so to sign, ratify, accept, approve or accede to the Treaty at the earliest possible date'. However, its co-sponsorship was in error, given that it voted against the resolution (Nuclear Weapons Ban Monitor, 2023). Furthermore, according to the Stakeholder Submission for the 46th Session of the Universal Periodic Review, the International Campaign to Abolish Nuclear Weapons (ICAN) regrets that Macedonia shows support of the potential use of nuclear weapons (ICAN, n.d.) although such aspirations have not yet been expressed explicitly.

3.3. International Atomic Energy Agency (IAEA) Safeguards Agreements

According to Article III(4) of the NPT, it is required for NNWS parties to *"conclude agreements with the International Atomic Energy Agency (IAEA) to meet the requirements of this Article either individually or together with other States in accordance with the Statute of the IAEA."* In response, the IAEA has extensive experience in building a nuclear legal framework, and has carried out a lot of work in assisting Member States to establish a national nuclear legal framework (Louka, 2011, p.40), including Macedonia which became a member of the IAEA in 1994 (National Safety Directorate, 2022, p.4). Out of all the States that the IAEA reports as having a Safeguards Agreement in force, some States have publicized their safeguard agreement on the IAEA's website, and Macedonia accepted the conditions of the Model Safeguards Agreement (Fry, 2013, p. 168), as further referred in the Agreement for the Application of safeguards in Connection with the NPT. By the same token, Article III of the NPT also requires each NNWS to accept Safeguards as set forth in an agreement with IAEA, *"on all special fissile material whether it is being produced, processed or used in all peaceful nuclear activities within the territory"* of a State party (Negm, 2009, p.61). On that account, it is emphasized that

Macedonia has no nuclear installations, according to definition of the Convention on Nuclear safety (CNS) on its territory. Moreover, Macedonia does not have nuclear power units, no research reactors, nor does it operate any other nuclear installations or uranium or thorium mines. The main use of ionizing radiation in the country is in medicine, industry, and education/research. All radioactive sources and radiation generators used in the country are imported from abroad, while radioactive waste is produced mainly in nuclear medicine applications (National Safety Directorate, 2022, p.4).

3.4. The Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO)

Macedonia deposited its instrument of ratification of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) with the Secretary-General of the U.N. on March 14th 2000, thus becoming the fifty-fifth State Signatory to have ratified the Treaty (CTBTO, n.d.). Macedonia's initial perception of the CTBT was reflected by the delegation of the Republic of Macedonia to the OSCE, Ambassador Ilioski which stated the following:

> "*We perceive this Treaty, together with the NPT, as crucial pillars of nuclear disarmament and non-proliferation, which would contribute vastly to the prevention of nuclear weapon renaissance, which may result in repeating nuclear arms races"* (Delegation of the Republic of Macedonia to OSCE, n.d.).

Its national support was reconfirmed by Macedonia's Minister of Foreign Affairs Dimitrov who stated that the "*CBTB represents one of the backbones of the international system of disarmament and non-proliferation, contributing to global peace and security*" (Ministry of Foreign Affairs, 2019). Macedonia's support toward the CTBT is continuously expected, unless otherwise changed by its national interests.

4. Conclusion

As long as nuclear weapons exist, our future remains reliant on the continuing self-control of the leaders of global powers due to nuclear disarmament never being completely effectuated (Louka, 2011, p.13). By such virtue, Macedonia must reinforce its position in global nuclear affairs through both national and international legislation, as well as resolve the question of potential use of nuclear energy within

domestic borders in order to ensure its national security as a NNWS in times of nuclear tensions.

References

Ampovska, M. (28 June, 2013). Nuclear Energy and Nuclear Law in Macedonia and Neighbor Countries – Bulgaria, Serbia and Albania. *Balkan Social Science Review*, Vol.1, 3-22.

Analytica. (2010). *Greening the energy sector – Does Macedonia need nuclear energy?* Retrieved from https://www.analyticamk.org/images/stories/files/report/papers/paper_3.pdf.

Andrikos, N. (1985). A Balkan nuclear-weapons-free zone. *Bulletin of Atomic Scientist*, 2(10), 29-31.

Boon, K.E., Huq, A. & Lovelace, Jr. D.C. (2012). *Terrorism: Commentary on Security Documents – Volume 121: Nuclear Non-Proliferation Treaty*. Oxford: Oxford University Press.

Boothby, W. & Heintschel von Heinegg, W. (2022). *Nuclear Weapons Law: Where Are We Now?* Cambridge: Cambridge University Press.

Criminal Code of the Republic of Macedonia (Consolidated text) "Official Gazette of the R.M."80/99,4/2002,43/2003,19/2004,81/2005,60/06,73/06,7/08,139/08,114/09,51/11,135/11,185/11,142/12,166/12,55/13,14/14,27/14,28/14,115/14,132/14. Retrieved from https://www.pravdiko.mk/wp-content/uploads/2013/11/Krivichen-zakonik-integralen-prechisten-tekst.pdf.

Cronberg, T. (2024). *How to bolster nuclear-weapon-free zones*. Retrieved from https://europeanleadershipnetwork.org/commentary/how-to-bolster-nuclear-weapon-free-zones/.

CTBTO. (n.d.). *The Former Yugoslav Republic of Macedonia Ratifies Comprehensive Nuclear-Test-Ban Treaty*. Retrieved from https://www.ctbto.org/resources/for-the-media/press-releases/former-yugoslav-republic-macedonia-ratifies-comprehensive.

Delegation of the Republic of Macedonia to OSCE. (n.d.). *Statement by Ambassador Kire Ilioski, Permanent Representative of the Republic of Macedonia to OSCE, UN and Other International Organizations in Vienna, CTBT, Ministerial Meeting, June 13 Vienna*. https://www.ctbto.org/sites/default/files/2022-07/macedonia.pdf.

Foreign Broadcast Information Service. (1966). *Daily Report, Foreign Radio Broadcasts*. Columbus: Ohio State University.

Fry, J.D. (2013). *Legal Resolution of Nuclear Non-Proliferation Disputes*. Cambridge: Cambridge University Press.

Gareva, R. & Hadji-Janev, M. (2012). Achieving Greater Security through a New Approach in Applying Strategy of Nonproliferation and Arms Control: Macedonia in Context. *Applied Science and Analyses – ASA*.

ICAN. (n.d.) *Stakeholder Submission for the 46th Session of the Universal Periodical Review – Report on the Republic of North Macedonia*.

International Atomic Energy Agency. (2022). *Nuclear Law: The Global Debate*. The Hague: T.M.C. Asser Press.

Klick, D.J. (1987). A Balkan Nuclear Weapon-Free Zone: Viability of the Regime and Implications for Crisis Management. *Journal of Peace Research*, 24(2), 111-124.

Law on Protection against Ionizing Radiation and Safety.

Louka, E. (2011). *Nuclear Weapons, Justice and the Law*. Cheltenham: Edward Elgar Publishing.

Miljkovic, M. (2024). *Yugoslavia's Ambitious Nuclear Policy in the 1960s and 1970s*. Retrieved from https://www.wilsoncenter.org/blog-post/yugoslavias-ambiguous-nuclear-policy-1960s-and-1970s#:~:text=Putting%20these%20words%20and%20promises,between%20two%20Cold%20War%20superpowers.

Moorthy, P. (2006). *Nuclear Weapon Free Zone*. New Delhi: Concept Publishing Company.

Negm, N. (2009). *Transfer of Nuclear Technology under International Law: Case Study of Iraq, Iran and Israel*. Leiden: Martinus Nijhoff Publishers.

NTI. (2023). *Former Yugoslavia*. Retrieved from https://www.nti.org/countries/former-yugoslavia/.

NTI Nuclear Security Index. (2023). *Economist Impact Methodology, Theft and Sabotage*. https://www.ntiindex.org/wp-content/uploads/2023/07/2023_NTI-Index_EI-Methodology.pdf.

Nuclear Weapons Ban Monitor. (2023). *North Macedonia*. Retrieved from https://banmonitor.org/profiles/north-macedonia.

Pilat, J.F. & Pendley, R.E. (1990). *Beyond 1995: The Future of the NPT Regime*. New York: Springer.

Republic of North Macedonia Ministry of Defence. (2023). *Longterm Defence Capabilities Development Plan 2023-2032 (No. 08-2473/1)*. https://mod.gov.mk/storage/2023/10/DPROS-2023-2032-publikacija-za-web-eng.pdf.

Republic of North Macedonia Ministry of Foreign Affairs. (25 September, 2019). *Statement by Minister of Foreign Affairs H.E. Nikola Dimitrov at the 2019 Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty (CTBT), New York*. https://www.ctbto.org/sites/default/files/2022-07/North_Macedonia.pdf.

Republic of North Macedonia President. (2023). *Address by President Pendarovski at the General Debate of the 78th Session of the United Nations General Assembly*. Retrieved from https://pretsedatel.stevopendarovski.mk/en/address-by-president-pendarovski-at-the-general-debate-of-the-78th-session-of-the-united-nations-general-assembly/.

Republic of North Macedonia Radiation Safety Directorate. (2022). *7th National Report Under the Convention on Nuclear Safety*.

Rydell, R.J. & Platias, A. (May,1982). The Balkans: A weapon free zone? *Bulletin of the Atomic Scientists*, 38(5), 57-59.

Sharp, J. (June, 1993). Europe's Nuclear Domino's. *Bulletin of Atomic Scientists*, 49(5), 29-33.

Trifunovska, S. (1994). *Yugoslavia Through Documents: From Its Creation to Its Dissolution*. Dordrecht: Martinus Nijhoff.

United States Congress. (1968). *Nonproliferation Treaty: Hearings before the Committee on Foreign Relations, United States Senate, Nineteenth Congress, Second Session on Executive H, 90th Congress, Second Session, Treaty on the Nonproliferation of Nuclear Weapons, July 10, 11, 12, and 17, 1968*. Washington: U.S. Government Printing Office.