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STATE GUARANTEES FOR THE SAFETY OF OFFSHORE OIL AND GAS INSTALLATIONS WITHIN THE FRAMEWORK OF INTERNATIONAL LAW AND IMMIGRATION LAW

GARANTIAS ESTATAIS PARA A SEGURANÇA DAS INSTALAÇÕES DE PETRÓLEO E GÁS OFFSHORE NO ÂMBITO DO DIREITO INTERNACIONAL E DO DIREITO IMIGRATÓRIO

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ABSTRACT

Offshore oil and gas installations are independent structures that are vulnerable to disturbances and threats. Like ships, offshore oil and gas installations also have national flags and legal instruments that protect them. Under international law, offshore oil and gas installations are protected by the Rome Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Situated on the Continental Shelf 1988. It is noted that there have been several incidents of disturbances and threats that have occurred at offshore oil and gas installations around the world. Some events are well recorded and known to the public, while some events

RESUMO

Instalações offshore de petróleo e gás são estruturas independentes que são vulneráveis a perturbações e ameaças. Assim como navios, instalações offshore de petróleo e gás também têm bandeiras nacionais e instrumentos legais que as protegem. De acordo com o direito internacional, instalações offshore de petróleo e gás são protegidas pelo Protocolo de Roma para a Supressão de Atos Ilícitos contra a Segurança de Plataformas Fixas Situadas na Plataforma Continental de 1988. É notado que houve vários incidentes de perturbações e ameaças que ocorreram em instalações offshore de petróleo e gás ao redor do mundo. Alguns eventos são bem registrados

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are not public consumption. So far, offshore oil and gas installation operators have received legal guarantees for the security of their installations both on the high seas and in the sea territory of a country based on international law, territorial law and the inherent law according to the citizenship of the offshore oil and gas installation. Through this paper, the author aims to explain the potential threats and disturbances at offshore oil and gas installations and concrete examples of events that have occurred. Another aim is to explain how international legal instruments and immigration law protect offshore oil and gas installations from these threats and disturbances. Through normative legal research, this paper describes a series of threats and disturbances and the international and national laws that have emerged to protect them and their application in the field.

KEYWORDS: Offshore installations. International law. Immigration law. Disturbance and threat.

e conhecidos pelo público, enquanto alguns eventos não são de consumo público. Até agora, operadores de instalações offshore de petróleo e gás receberam garantias legais para a segurança de suas instalações tanto em alto mar quanto no território marítimo de um país com base no direito internacional, direito territorial e direito inerente de acordo com a cidadania da instalação offshore de petróleo e gás. Por meio deste artigo, o autor pretende explicar as potenciais ameaças e perturbações em instalações offshore de petróleo e gás e exemplos concretos de eventos que ocorreram. Outro objetivo é explicar como os instrumentos legais internacionais e a lei de imigração protegem as instalações offshore de petróleo e gás dessas ameaças e perturbações. Por meio de pesquisa legal normativa, este artigo descreve uma série de ameaças e perturbações e as leis internacionais e nacionais que surgiram para protegê-las e sua aplicação no campo.

PALAVRAS-CHAVE: *Instalações offshore. Direito internacional. Direito de imigração. Perturbação e ameaça.*

INTRODUCTION

It cannot be denied that the sea is a very potential source of wealth to be exploited. Initially only considered as a barn for almost unlimited biological wealth, the sea has experienced an expansion of exploitation along with technological developments. Through technological advances, countries and giant companies are racing to explore and exploit the sea[1]. One of the sources of non-renewable wealth, which is the object of the search, is stored far beneath the sea's surface, namely oil and natural gas.

The race for exploration and exploitation by the world's oil mining giants creates a new order.[2] A complex arrangement involving many variables in managing offshore oil and gas installations makes the original unidimensional sea become pluridimensional.[3] In international law of the sea, developing a multi-aspect world order always tries to be balanced by agreements with international law. Regarding exploration and exploitation of oil and gas, inter-

1 BARBESGAARD, Mads. 2017. Blue Growth: Savior or Ocean Grabbing? *The Journal of Peasant Studies*. Vol.45, No.1, pp.130–49.

2 GORDON, Todd., and WEBBER, Jeffery R. 2007. Imperialism and Resistance: Canadian Mining Companies in Latin America. *Third World Quarterly*. Vol.29, No.1, pp.63–87.

3 FAHRUDIN, Achmad., and SOLIHIN, Akhmad. *Maritime and Fisheries Legality: Development of International Maritime Law and Indonesian Legislation 2nd Edition*, (Jakarta, Indonesia Open University, 2018), pp.2.

national law of the sea also regulates the existence and matters of offshore oil and gas installations.[4]

Security for offshore oil and gas installations generally refers to protection against security threats in offshore waters or waters outside the boundaries of state jurisdiction.[5] Security threats that can occur in the area of offshore oil and gas installations include threats of terrorism, robbery, smuggling, and other crimes.[6] Therefore, the security of offshore oil and gas installations is essential to ensure the safety of people and assets involved in operations at sea. Several security measures currently in place to protect offshore oil and gas installation areas include security technology.[7] First, advanced security technologies such as monitoring and detection systems, CCTV, radar, and hardware and software security systems are used to monitor and protect offshore oil and gas installation areas. Then the next security measure is in the form of security patrols. Security patrols are carried out by patrol boats, helicopters or aircraft carriers equipped with high-security systems to protect offshore oil and gas installation areas. Then the essential thing in all existing security measures is the establishment of security protocols: Security protocols must be followed by all personnel involved in the operation of offshore oil and gas installations, including security personnel, operators and ship crews.

Of course, the security of offshore oil and gas installations does not only focus on the physical security of buildings and their static operations. But offshore oil and gas installations must also look at the people involved in them. The human factor as a dynamic element, not only because humans move, but also humans are what drive the system in offshore oil and gas installations themselves.[8] If we look at several events related to threats to the security of offshore oil and gas installations, the role of humans is something that cannot be ignored. Offshore oil and gas installations as a building structure have legal sovereignty in accordance with maritime registration as befits the nationality of

4 GIANNOPOULOS, Nikolaos. 2019. Global Environmental Regulation of Offshore Energy Production: Searching For Legal Standards In Ocean Governance. *Review of European, Comparative & International Environmental Law.* Vol.28, No.3, pp.289-303.

5 BLYSCHAK, Paul Michael. 2013. Offshore Oil And Gas Projects Amid Maritime Border Disputes: Applicable Law. *Journal of World Energy Law and Business*. Vol.6, No.3, pp.210-233.

6 CASSIDY, Fikry, et.al, *Maritime Axis Diplomacy: Maritime Security in the Perspective of Foreign Policy* (Jakarta, Agency for Policy Assessment and Development of the Ministry of Foreign Affairs of the Republic of Indonesia, 2016), pp.5.

7 HEFNI, Hanna Adistyana. 2021. Rights and Obligations of States Owning Offshore Installations Regarding International Navigation According to International Law. *Jurnal Hukum & Pembangunan*. Vol.51, No.2, pp.1885-1902.

8 VIDAL, Priscila da Cunha Jácome., GONZÁLEZ, Mario Orestes Aguirre., de MELO, David Cassimiro., FERREIRA, Paula de Oliveira., SAMPAIO, Priscila Gonçalves Vasconcelos., LIMA, Lílian Oliveira. 2022. Conceptual Framework For The Decommissioning Process of Offshore Oil and Gas Platforms. *Marine Structures*. Vol.85.

a ship. Therefore, the existence of offshore oil and gas installations in the sea area of a country will result in the sovereignty of the installation being subject to and obeying the territorial laws of a country. Matters related to human traffic entering and leaving the installation, changes in personnel, completeness of travel documents and residence permits are absolute requirements that the installation and the people in it are subject to and obey the immigration laws of the country that owns the territory.

In past legal writings, the security context of offshore oil and gas installations has been discussed by several researchers. First, Mikhail Kashubsky provides a comprehensive overview of the security of offshore oil and gas installations internationally.[9] Second, Arie Afriansyah tried to map the legal aspects of using offshore oil and gas installations, especially from the perspective of Indonesian law.[10] Finally, Hanna Adistyana Hefni looks more specifically at international navigation concerning the rights and obligations of countries that own offshore oil and gas installations according to international law.[11] From several sources of legal writings that have gone past, reviews of offshore oil and gas installations have their specificities, which of course, have a wedge in international law. However, from the literature survey, the main ideas related to law in maintaining the security of offshore oil and gas installations are still empty spaces that can be discussed further.

State guarantees for the security of offshore oil and gas installations from the perspective of international law of the sea are the subject of this paper, especially its application in Indonesia, with a few comparisons to several other countries. As independent structures above sea level, offshore oil and gas installations are often considered to have their laws based on installation flag law. However, with so many existing offshore oil and gas installations, the extent of the waters surrounding them and the potential for disturbances and threats that can arise at any time, international law and national law is vital to ensure the security and safety of their existence. Therefore, through normative legal research, this essay will provide an overview of state guarantees in the security of offshore oil and gas installations within the framework of international law. Furthermore, this study is essential to consider the enrichment of knowledge in the efforts of the state to guarantee the security and safety of their existence.

9 KASHUBSKY, Mikhail. *Offshore Oil and Gas Installations Security: An International Perspective*. (London, Informa Law from Routledge, 2015).

10 AFRIANSYAH, Arie., and SURTIWA, Salsabila Siliwangi. 2020. Surveillance at Sea: Legal Aspects of Offshore Installation's Utilization. *Journal of Indonesian Legal Studies*. Vol.5, No.2, pp.419-48.

11 HEFNI, Hanna Adistyana. (2021). pp.1885-1902.

RESEARCH METHODS

Scientific research is characterized as an empirical, rational and abstract activity. In law, the scientific research method used originates from sociological research. Nonetheless, legal research methods have characteristics that distinguish them from research methods in the socio-humanities field in general.[12] In this paper, the legal research method used is normative legal research. When viewed through grouping discussion points of view, normative legal research starts from norms identified as problematic, conflicted, vague, or empty.[13] In addition, non-data legal material is studied in this normative legal research method. To examine the safety of offshore oil and gas installations, this paper will provide an overview of research results using the Statute Approach and The Case Approach within the framework of international law. The sources of legal materials used include primary legal materials in the form of embodiments of legal principles and rules, namely basic regulations, international conventions and laws and regulations regarding the law of the sea. In comparison, the secondary legal materials used include scientific publications, books and other sources from the internet related to law in general and the law of the sea in particular.

ANALYSIS AND DISCUSSION

The utilization of oil and natural gas controls more than sixty per cent of the world's energy sources.[14] Of this figure, about a third of the demand for oil and natural gas is obtained from offshore oil and gas installations.[15] The oil and gas industry produced from around 6000 offshore installations worldwide is estimated to be worth around USD 300 billion.[16] Risks and high-security potential accompany such an enormous economic value generated by the oil and gas industry. Both risks and potential security apply equally to onshore and offshore oil and gas installations. There are undoubtedly different things between onshore and offshore (sea) installations. Territorial, security and safety issues, as well as a much harsher environment, overshadow the operations of offshore oil and gas installations. Since the first conceptual

12 AJI, Koesmoyo Ponco., PURNOMO, Agung Sulistyo., NURKUMALAWATI, Intan., WIRAPUTRA, Anindito Rizki., BAWONO, Sri Kuncoro., SOHIRIN, S., Wilonotomo, W. 2024. Investigating The Role of E-Service Quality and Information Quality On E-Government User Satisfaction In The Immigration Department. *International Journal of Data and Network Science*. Vol.8, No.4, pp.2499-2508.

13 SEREDIUK, Vitalii., SHUTAK, Illya., ONYSHCHUK, Ihor. 2024. Textualism As A Theory of Interpretation of Legal Norms In The Context of Doctrinal Views. *Statute Law Review*. Vol.45, No.1, pp.hmae006.

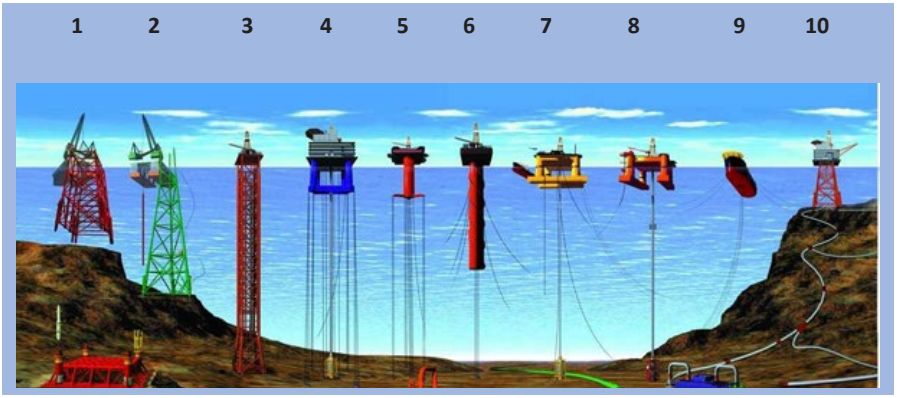
14 HUAFANG, Huang., CHENG, Xianfu., WEI, Liangli., LIU, Dongping., DENG, Minmin. 2024. Are Natural Resources A Driving Force For Financial Development Or A Curse For The Economy? Policy Insight From Next-11 Countries. *Resources Policy*. Vol.88 No.104466.

15 KASHUBSKY, Mikhail., (2016), pp.1

16 AFRIANSYAH, Arie., SURTIWA, Salsabila Siliwangi. (2020). pp.419.

saltwater installation was created in 1896 in California[17], offshore oil and gas exploration has experienced a significant increase in all parts of the world. Exports that were initially on the beach but in recent years have expanded into deeper waters and more extreme environments.[18] Through the illustration below, we can see the types of oil and gas installations that are offshore:

Figure 1. Types of offshore oil and gas structures [19]



Based on the picture above, according to data taken in 2005, from left to right, we can see the types of Offshore Oil and gas structures used in this industry, namely 1, 2) conventional fixed platforms (deepest: Shell's Bullwinkle in 1991 at 412 m/1,353 ft GOM); 3) compliant tower (deepest: ChevronTexaco's Petronius in 1998 at 534 m /1,754 ft GOM); 4, 5) vertically moored tension leg and mini-tension leg platform (deepest: ConocoPhillips' Magnolia in 2004 1.425 m/4.674 ft GOM); 6) Spar (deepest: Dominion's Devils Tower in 2004, 1,710 m/5,610 ft GOM); 7,8) Semi-submersibles (deepest: Shell's NaKika in 2003, 1920 m/6,300 ft GOM); 9) Floating production, storage, and offloading facility (deepest: 2005, 1,345 m/4,429 ft Brazil); 10) sub-sea completion and tie-back to host facility (most profound: Shell's Coulomb tie to NaKika 2004, 2,307 m/ 7,570 ft).[20]

17 AUSTIN, Diane E., PRIEST, Tyler, PENNEY, Lauren., PRATT, Joseph., PULSIPHER, Allan G., ABEL, Joseph., TAYLOR, Jennifer., *History Of The Offshore Oil And Gas Industry In Southern Louisiana* (Iowa, U.S. Dept. of the Interior, Minerals Management Service: Gulf of Mexico OCS Region: OCS Study MMS, 2008), pp.43.

18 RADOVICH, Violeta S., *Oil And Gas In The Ocean-International Environmental Law And Policy* (Shanghai, China, IEEE, 2016).

19 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION. Ocean Explorer: Expedition to the Deep Slope. National Oceanic and Atmospheric Administration, Types of Offshore Oil and gas Structure (last edited 26 August 2010) Available online at: http://oceanexplorer.noaa.gov/explorations/06mexico/background/oil/media/types_600.html (Accessed on 17 July 2024).

20 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.

This type of oil platform is, of course, inseparable from the definition stated in the International Convention for Prevention of Pollution from the Ships (MARPOL) 1973/1978, defined as "any fixed or floating drilling rig... engaged in the exploration, exploitation, or associated offshore processing of sea-bed mineral resources…".[21] However, the United Nations Convention on the Law of the Sea (UNCLOS) has no specific definition regarding oil platforms. UNCLOS only regulates the "creation and use of artificial islands, installations and buildings".[22] A complete definition of Offshore Oil and Gas Installations beaches is found in the Rome Protocol 1988, which states that "fixed platform means an artificial island, installation or structure permanently attached to the sea-bed for exploration or exploitation of resources or other resources economic purposes".[23]

Judging from the visualization shown and referring to existing regulations, it can be concluded that offshore oil and gas installations (after this written "offshore installations") are rigid installations that tend to be stiff and difficult to move. For this reason, offshore oil and gas installations have potential risks, which can also be an advantage in dealing with the potential security of offshore installations. The table below shows some of the advantages and disadvantages of offshore installations based on several variables.

Table 1. ***Advantages and disadvantages of security risks at offshore oil and gas installations***

Variable	Potential security risks	
	Advantages	Disadvantages
Location (offshore)	Hard to reach	Limited access, including by workers
Structure	Strong and not easily accessible from sea level	High complexity, extra care
Ecosystem	The marine ecosystem requires many calculations to be able to access (waves, surface elevation, wind and weather)	Need strong structure and a particular mode of transportation

21 *International Convention for the Prevention of Pollution from Ships*, opened for signature 2 November 1973, [1983] I-22484 - (Entered into force 2 Oktober 1983), Art 26(1).

22 *United Nations Convention on the Law of the Sea*, opened for signature 10 December 1982, [1994] I-31363 (Entered into force 16 November 1994), Art 56, 60, 80 and 87.

23 *Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (Rome Protocol 1988)*, opened for signature 10 March 1988, [1992] I-29004 - (Entered into force 1 March 1992), Art 1(3).

Variable	Potential security risks	
	Advantages	Disadvantages
Accessibility (Isolated)	All information to and from outside the installation may be restricted[24]	Slow response
Law Enforcement	Subject to the laws of the ship/ installation flag	In installations located in the maritime territory of a country, law enforcement is subject to the laws of the country that owns the territory.
Immigration	Subject to the laws of the country where the installation is located, all personnel have passports and have residence permits so that the certainty of their immigration law is guaranteed	Immigration service bureaucracy is far inland

Source: *Analysed from the primary source*

Offshore oil and gas installations are a costly and complex asset. Several offshore installations cost more than US$1 billion to build, and of course, the operational and maintenance costs that must be borne are not small.[25] We must all understand that this offshore oil and gas installation is not a fortress. For this reason, offshore installation platforms are designed according to their designation to explore and exploit the natural resources beneath them in the framework of economic prosperity. So it is unsurprising that offshore installations have high economic value, not only as an asset but also as a product. In its operational history, several of these offshore installations have faced various security risks. According to Kashubsky, there are at least several attacks against these offshore installations, including:[26]

1. Threats of attack
   The easiest and cheapest attack from the perpetrator's perspective as it requires no unique resources or expertise, but it is expensive for the instal-

24 JENKINS, Brian Michael., CORDES, Bonnie., TREVERTON, Karen Gardela., PETTY, Geraldine. *A Chronology of Terrorist Attacks and Other Criminal Actions Against Maritime Targets*. In: JENKINS, Brian Michael., CORDES, Bonnie. Violence at Sea (Paris, ICC Publishing S.A., 1986), pp.3. Available online at https://www.rand.org/pubs/papers/P6906.html.

25 KASHUBSKY, Mikhail., (2016), pp.131.

26 KASHUBSKY, Mikhail., (2016), pp.137-146.

lation to ensure the threat does not occur. Kashubsky noted ten threats, both bombs and attacks on offshore oil and gas installations.[27] An example of a recorded attack threat is the threat of a bomb attack on Philips Petroleum Company offshore installations in the Hewett oil field area in England on August 25, 1975. After an investigation by the authorities, it was determined that the telephone threat from an unknown source was fake news (hoax). There were also threats of attacks on British and Norwegian offshore installations in the North Sea in 1981 by the Free Palestine Liberation Group. Like the 1975 case, the 1981 case was declared a fake threat. Even though it did not result in physical damage, this fake threat of attack resulted in huge losses by stopping the operation of oil and gas refineries and operations that had to be deployed to evacuate personnel and search for bombs as the source of the threat.[28]

2. Bombings

   Detonating explosives is tricky because the executant must reach the target first. Bombings are severe attacks that can damage and even destroy offshore installations bringing operations to a complete halt for a very long time. At least six incidents of bombings were recorded on installations. Furthermore, one attack used underwater explosives against underwater installation structures and oil pipelines.[29] An example is the bombing of the offshore installations at the Afremo oil refinery in Nigeria on June 25, 2009, by MERD rebels. In this event, the MERD rebels destroyed the supporting structure, resulting in the collapse of the offshore installation and the cessation of oil production and distribution from the installation.[30]

3. Directly targeted attacks

   Whether fired or launched, a direct attack with a weapon is one of the most direct attacks because it can be carried out at a considerable distance from a stationary object. In addition to weapons, direct attacks can use aircraft or ships as a medium for an attack. According to Kashubsky's research, there were eleven armed attacks and one attack by ship against offshore installations.[31] An example of this event is the air attack by the Iraqi air force on Iranian offshore installations in the Nowruz area in March 1983. This direct attack resulted in the destruction of the offshore installations, the spilling of oil in sea waters and a severe fire in the oil spill.[32]

27 KASHUBSKY, Mikhail., (2016), pp.137.

28 JENKINS, Brian Michael., *Potential Threats to Offshore Platforms*. (Santa Monica, CA: RAND Corporation, 1988). pp.108.

29 KASHUBSKY, Mikhail., (2016), pp.138-140.

30 AVIS, Peter., *Oil Platform Security: Is Canada Doing All It Should?* (Ottawa, Canada, Energy Infrastructure Protection Policy Research Project, 2006) pp.59.

31 KASHUBSKY, Mikhail., (2016), pp.140 and 142.

32 HOSMER, Alicia Watts., STANTON, Colby E., BEANE, Julie L. "Intent to spill: Environmental

4. Infiltration, hijacking, kidnapping and hostage-taking
   Twenty-seven attacks were reported as armed infiltration of offshore oil and gas installations. From several acts of armed intrusion, some only robbed, and some others hijacked and then took hostages to kidnap. However, not all piracy is carried out by outsiders. In several cases, it was found that striking workers or the local community hijacked offshore installations.[33] For example, in Nigeria on July 31 2000, a group of youths hijacked and took 165 workers hostage at offshore installations, including 20 workers of foreign nationality. There was no extensive coverage in the mass media regarding the incident and the fate of the perpetrators. However, witnesses stated that they were released four days later by the group of hostage takers after an agreement was obtained to pay a ransom from the oil company.[34]
5. Insider crimes
   Although not in the category of armed attacks, insider crimes can have severe consequences for offshore installations and production processes. Acts of sabotage, illegal access to disclosure of confidential information dominate this crime. There is no official record of this attack, which may negatively impact the credibility of offshore installation operators.[35]
6. Cybercrime
   Cybercrime is the most famous attack in recent times because it requires no physical contact and reduces the risk of being caught. Along with the development of the era, there have been many operational processes for oil and gas installations that have used information technology and can be accessed digitally. Cyber attacks are carried out against energy infrastructure and information technology systems that drive an operation process in offshore installations. In 2014, cyber-attacks were reported in the form of hacking of 300 oil and gas industry companies in Norway.[36]
7. Protest
   Although not included in the attack category, protests can potentially disrupt offshore installations and production operations. Thirty-seven pro-

Effects of Oil Spills Caused by War, Terrorism, Vandalism, and Theft." In *International Oil Spill Conference*, Vol. 1997, No.1, pp.157-163. American Petroleum Institute, 1997.

33 KASHUBSKY, Mikhail. (2016) pp.140-142 see also at JENKINS, Brian Michael. (1988) pp.17.

34 LIA, Brynjar., KJOK, Ashild. *Energy Supply as Terrorist targets? Patterns of Petroleum Terrorism*. In: HERADSTVEIT, Daniel., HVEEM, Helge. (eds). Oil in the Gulf: Obstacles to Democracy and Development (New York, Routledge, 2017), pp.110.

35 JENKINS, Brian Michael., *Potential Threats to Offshore Platforms*. (Santa Monica, CA: RAND Corporation, 1988). pp.3-5.

36 KASHUBSKY, Mikhail., (2016), pp.144-145 see also at: MULLER, Lilly Pijnenburg., GJESVIK, Lars., FRIIS, Karsten. Cyber-Weapons In International Politics: Possible Sabotage Against The Norwegian Petroleum Sector (Oslo, Norway, Norwegian Institute of International Affairs 2018) pp.6-7.

tests resulted in operational disruptions, of which seven escalated into the forced takeover and illegal detention of offshore installation workers.[37] One example is the protest by the environmental activist group "Greenpeace" on September 21, 2010, at the Chevron drilling ship in the northern seas of Scotland.[38]

The most dangerous of attacks and disturbances in offshore installations is when the attacks or disturbances are carried out simultaneously or almost simultaneously in terms of methods and targets. Kashubsky stated that these simultaneous attacks are more challenging to deal with and can potentially disrupt supply chains and cause more significant economic damage.[39] In a similar study, Deloughery stated that this kind of simultaneous attack generally has a higher probability of success and creates more casualties.[40]

Various legal instruments have been issued to anticipate various vulnerabilities and as a reaction to attacks aimed at offshore installations. These legal instruments can be seen from the history of forms. At the first Conference on the Law of the Sea (UNCLOS I), the clause regarding the construction of offshore installations on the continental shelf became one of the main topics of discussion. These legal provisions become guidelines for countries that own offshore installations during the operation process. Then until UNCLOS 1982[41], the clause regarding offshore installations was not only the domain of the continental shelf[42] but also contained in the EEZ[43] and the high seas[44], which became the regime of waters for the development of offshore installations.[45]

37 KASHUBSKY, Mikhail., (2016), pp. 145.

38 ROGERS, Richard., *Greenpeace Forced To End North Sea Oil Drilling Protest* (26 September 2010), theguardian.com, Available online at: https://www.theguardian.com/environment/2010/sep/26/greenpeace-protest-stena-carron-chevron

39 KASHUBSKY, Mikhail., (2016), pp. 146.

40 DELOUGHERY, Kathleen. 2013. Simultaneous attacks by terrorist organisations. *Perspectives on Terrorism*. Vol.7, No.6, pp.79-89.

41 UNITED NATIONS. *United Nations Convention on the Law of the Sea*, opened for signature 10 December 1982, [1994] I-31363 (Entered into force 16 November 1994).

42 UNITED NATIONS. *United Nations Convention on the Law of the Sea*, Article 80 states that Article 60 applies mutatis mutandis to artificial islands, installations and structures on the continental shelf.

43 UNITED NATIONS. *United Nations Convention on the Law of the Sea*, Article 56 Paragraph (1) point i states that in the EEZ, the coastal State has jurisdiction as provided by the relevant provisions of this Convention regarding the establishment and use of artificial islands, installations and structures; and Paragraph (1) letter b of Article 60 UNCLOS states that in an EEZ, the coastal State shall have the exclusive right to construct and authorize and regulate the construction, operation and use of installations and structures for the purposes provided for in Article 56 and other economic purposes.

44 UNITED NATIONS. *United Nations Convention on the Law of the Sea*, Article 87 Paragraph (1) letter d states that the high seas are open to all countries, be they coastal states or non-coastal states. The freedom of the high seas is exercised under the provisions of this Convention and by other international law. That consists in the freedom to build artificial islands and other installations permitted under international law, subject to chapter VI.

45 HEFNI, Hanna Adistyana. (2021), pp.501.

Apart from UNCLOS 1982, which is more of a "constitution" for international law of the sea, other international legal instruments that also regulate the protection and security of offshore installations can be found expressly in several international laws, such as:[46]

1. The Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA Convention) 1988 and 2005;
2. The International Convention against the Taking of Hostages (The Hostages Convention 1979);
3. The United Nations Convention Against Transnational Organized Crime (UNTOC, also called the Palermo Convention 2000);
4. The International Convention for the Safety of Life at Sea (SOLAS 1974), including versions and amendments;
5. The International Ship and Port Facility Security Code (ISPS Code);
6. Seafarers' Identity Documents Convention (SID 1958) and Seafarers' Identity Documents Convention (Revised), 2003 (C185); and
7. The Charter of the United Nations (UN Charter)

Of course, this international legal instrument does not fully address offshore installations. However, several articles in this legal instrument are directly related to offshore installations, and most of them are only related to their operations. This international legal instrument is understandable because the central portion of the law of the sea instruments is related to the sea, people and ships. At the same time, offshore installations can be considered separate entities.

Of the various international legal instruments mentioned above, one derivative is directly related to offshore installations, namely the Rome Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf 1988. In short, this protocol requires the countries that own the installation offshore to establish penal provisions for illegal acts against offshore installations in the continental shelf zone.[47] The

46 KASHUBSKY, Mikhail. (2016), pp.383-399.

47 HEFNI, Hanna Adistyana. (2021), pp.503.

1988 Rome Protocol establishes the *aut dedere aut judicare*[48] principle, which criminalizes the behaviour of:[49]

1. Who takes control of offshore installations by force or by the threat of force;
2. Those who take acts of violence against a person on an offshore installation if it can endanger the safety of the installation;
3. Destroying offshore installations or damaging them to endanger safety;
4. Those who place or cause the placement of a tool or material in offshore installations that cause damage or can damage the ship or its cargo;
5. Parties who injure or kill anyone while carrying out the actions mentioned in numbers 1 – 4 above;
6. Parties who try one of the actions as mentioned in numbers 1 – 5 above;
7. Parties who become accomplices for one of the actions mentioned in numbers 1 – 6 above; and
8. Forcing other people through threats to take one of the actions mentioned in numbers 1 – 7 above.

Based on all the international legal instruments mentioned above, primarily when referring to UNCLOS 1982, the coastal state of offshore installations has the following rights and obligations:

48 In law, the principle of *aut dedere aut judicare* («either extradite or prosecute") refers to the legal obligation of states under public international law to prosecute persons who commit serious international crimes where no other state has requested extradition. However, the Lockerbie case demonstrated that the requirement to extradite or prosecute is not a rule of customary international law. The obligation arises regardless of the extraterritorial nature of the crime and regardless of the fact that the perpetrator and victim may be of alien nationality. Typically offences classified as falling under the aut dedere aut judicare principle include:

- Hijacking of civilian aircraft
- Taking of civilian hostages
- Acts of terrorism
- Torture
- Crimes against diplomats and other "internationally protected persons", and;
- Financing of terrorism and other international crimes

For futher reading, see: Stephen Hall, *International Law 2nd Ed.* (Sydney : LexisNexis Butterworths, 2006). Available online at: https://nla.gov.au/nla.cat-vn3660464

49 UNITED NATIONS. *Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf* (Rome Protocol 1988).

Table 2. ***Rights and Obligations of the Coastal State From Offshore Installations***[50]

Rights	1. Have exclusive jurisdiction over offshore installations; 2. Establish a safety zone around the offshore installation of a reasonable size to ensure the safety of navigation and the offshore installation itself; and 3. Determine the area of the safety zone according to international standards, and the determination of the safety zone must be reasonable to ensure the nature and function of the offshore installation.
Obligations	1. Provide notification regarding the construction of offshore installations; 2. Dismantling offshore installations that are no longer operating in order to ensure the safety of navigation; 3. Ensure that the process of dismantling offshore installations does not interfere with fishing, pollute the marine environment, as well as the rights and obligations of other countries; 4. Publicly provide information on the depth, position, and dimensions of offshore installations that are not entirely dismantled; 5. Determine the safety zone around the offshore installation not more than 500 meters measured from the outermost point of the offshore installation, except as authorized by international standard general agreement or as recommended by a competent international organization; 6. Inform the area of the safety zone for offshore installations; 7. Not constructing offshore installations where disturbances to them may arise due to the use of sea lanes of recognized importance for international navigation; and 8. Continue to pay attention to the interests of other countries exercising the freedom of the high seas and the rights granted by the convention regarding activities in the area in exercising the freedom to build offshore installations.[51]

Source: *UNCLOS, Article 60 Paragraph (2), (3), (4), (5), (6), and (7).*

50 HEFNI, Hanna Adistyana. (2021), pp. 501-502.

51 UNITED NATIONS. *United Nations Convention on the Law of the Sea*, Article 87 paragraph (2).

Offshore security refers to actions taken to ensure the safety and security of ships, ports and other maritime facilities. As a form of compliance with UNCLOS 1982 and other international legal instruments mentioned above, the coastal state drafted national legal instruments relating to offshore installations. In Indonesia, the International Ship and Port Facility Security Code (ISPS Code) is implemented through Chapter XI-2 of the International Convention for the Safety of Life at Sea (SOLAS).[52] The ISPS code was developed in response to the perceived threat following the 9/11 attacks on the United States. This safety regulation has two main parts: a mandatory clause and a clause in the form of implementing guidelines that aim to improve maritime security by providing special measures for ships and ports.[53] Indonesia follows up on this international law through Law Number 5 of 1983 concerning the Exclusive Economic Zone (UU ZEE), Government Regulation Number 17 of 1974 concerning Supervision of the Implementation of Oil and Gas Exploration and Exploitation in Offshore Areas and Minister of Transportation Regulation (Permenhub) Number 25 of 2011 concerning Shipping-Navigation Auxiliary Facilities, as well as Government Regulation Number 31 of 2021 concerning Implementation of the Shipping Sector. In Indonesia, several steps are taken to ensure the safety of offshore facilities. For example, Port Facility Security Officers (PFSOs) are responsible for ensuring that port facilities meet security requirements.[54] The organization also conducts internal audits to evaluate the implementation of ship and port security management.[55] In addition, there is a Declaration of Security (DoS), a written agreement between the ship's master and the port facility stating that they have complied with all relevant security requirements.[56]

Developing a Security Level Score (SLS) is another step taken in Indonesia to improve offshore safety. The SLS assesses the risk associated with various incidents and adapts security plans accordingly. The SLS helps ensure appropriate actions are taken to prevent or respond to potential threats.[57] Indonesia

52 DIRECTORATE GENERAL OF SEA TRANSPORTATION, *Indonesia Implements ISPS Code Consistently to Ships and Port Facilities* (18 November 2016), hubla.dephub.go.id

53 UNITED NATIONS. *International Convention for the Safety of Life at Sea, 1974* (with annex and final act of the International Conference on Safety of Life at Sea, 1974), opened for signature 1 November 1974, [1980] I-18961 - (Entered into force 25 May 1980), Chapter XI Art 2.

54 PRESIDENT OF THE REPUBLIC OF INDONESIA, *Government Regulation of the Republic of Indonesia Number 31 of 2021 concerning the Implementation of the Shipping Sector* (State Gazette of the Republic of Indonesia 2021 Number 41), Article 186.

55 PRESIDENT OF THE REPUBLIC OF INDONESIA, *Government Regulation of the Republic of Indonesia Number 31 of 2021 concerning the Implementation of the Shipping Sector,* Articles 183 – 197.

56 PRESIDENT OF THE REPUBLIC OF INDONESIA, *Government Regulation of the Republic of Indonesia Number 31 of 2021 concerning the Implementation of the Shipping Sector*, Article 1, Number 60.

57 WICAKSONO, Agung Bimo., *Development Of Security Level Score On Port And Vessel In Indonesia* (Institute of Technology Sepuluh Nopember Surabaya, Final Project, 2016), pp.1-4.

takes offshore security seriously and has implemented ISPS Code compliance, PFSO, internal audits, DoS agreements and SLS assessments. These steps aim to enhance maritime safety and protect against potential threats.

In England, this compliance form is outlined through Health and Safety at Work regulations such as Act 1974 (Application Outside Great Britain) Order 2013 and The Offshore Installations (Safety Zones) (No. 2) Order 2019 No. 1166.[58] In Australia, the form of compliance with UNCLOS 1982 and other international legal instruments related to offshore installations is outlined in the Offshore Petroleum and Greenhouse Gas Storage Act 2006, along with its amendments and related bills.[59]

If we look at the description above, we can see that the international law of the sea has provided formal protection for the safety of offshore oil and gas installations. Along the same line, coastal states interested in offshore installations have made a series of legal instruments that apply in their country. However, according to Mikhail Kashubsky and Anthony Morrison in their research, the legal instruments made by these countries are not entirely accepted and binding in the international maritime world.[60] For example, in Australia, according to the results of an investigation established under the Inspector of Transport Security Act 2006[61]. It was found that even though national legal instruments further regulated the expansion of security zones and the establishment of particular security areas around offshore installations. This would not necessarily be respected by the public, the maritime industry, especially foreign ships that will pass around offshore installations. This unrespect is because these national legal instruments are inconsistent with the international law of the sea instruments that have been in force and agreed upon so far and are not in line with the principle of freedom of navigation in waters outside the terri-

58 HEFNI, Hanna Adistyana. (2021). pp.503, see also at: Health and Safety Executive, *Offshore Health and Safety Law* (last edited n.a.) Available online at: https://www.hse.gov.uk/offshore/law.htm, and at: Legislation.gov.uk, *Statutory Instrument's 2019 No. 1166 on Offshore Installations: The Offshore Installations (Safety Zones)(No2) Order 2019*, (last edited n.a.) Available online at: http://www.legislation.gov.uk/uksi/2019/1166/made.

59 DEPARTMENT OF INDUSTRY, SCIENCE, ENERGY AND RESORCES. Regulating offshore Oil and Gas in Australian Commonwealth Waters (last edited 8 December 2021) Available online at: https://www.industry.gov.au/regulations-and-standards/regulating-offshore-oil-and-gas-in-australian-commonwealth-waters.

60 KASHUBSKY, Mikhail, and MORRISON, Anthony. 2013. Security of Offshore Oil and Gas Facilities: Exclusion Zones and Ships' Routeing. *Australian Journal of Maritime & Ocean Affairs*. Vol.5, No.1, pp.1-10.

61 The Australian Government in 2010, ordered an investigation into the security arrangements of Australia's offshore oil and gas industry. Pursuant to the Inspector of Transport Security Act 2006, the Inquiry was created to report to the Minister of Infrastructure and Transport on the security of offshore oil and gas resources in the Australian territorial sea and on the Australian continental shelf. For further reading see at: KASHUBSKY, Mikhail, and MORRISON, Anthony. (2013).

torial sea.[62] Meanwhile, in Indonesia, there is no official record of threats and disturbances to offshore installations operating around the territorial sea or up to the Indonesian Exclusive Economic Zone. This directly causes the absence of laws and regulations in Indonesia that specifically address the protection and security of special structures at sea, such as offshore installations.

The safety of offshore oil and gas installations is a very complex and sensitive issue in international law. With the development of technology and the exploitation of marine resources, countries must ensure that these activities are carried out safely and responsibly. As a subject of maritime law, offshore installations located in a country's sea territory must of course be subject to positive law in that country.[63] This is no exception to immigration regulations. The state has an obligation to regulate immigration and ensure that marine resource exploitation activities do not disrupt the security and safety of the country. In this context, the state must ensure that companies carrying out oil and gas exploitation have valid permits and meet the safety standards set by the government.[64] In the case of an accident at an offshore installation, the government must have a clear liability system to cover losses arising from the accident. The government must also ensure that companies carrying out marine resource exploitation have sufficient insurance to cover losses arising from the accident. The safety of offshore oil and gas installations is a shared responsibility between the state and the company.[65] The state must strictly implement applicable regulations, including safety zones, liability, and compensation. Companies must also meet the safety standards set by international and national regulations. In the context of national immigration law, the government must ensure that marine resource exploitation activities do not disrupt the security and safety of the country.[66] Thus, the status of personnel and marine resource exploitation activities can be carried out safely and responsibly, and avoid damage to the marine environment.

CONCLUSION

Offshore oil and gas installations are one of the pillars of production in the world's oil and gas industry. As part of a multi-trillion dollar industry, offshore installations have high economic value. However, based on their production role and as a symbol of the operator's technological progress, offshore installations have security issues that must be faced.

62 KASHUBSKY, Mikhail, and MORRISON, Anthony. (2013), pp.1-10.

63 AFRIANSYAH, Arie., SURTIWA, Salsabila Siliwangi. (2020). pp.422.

64 HEFNI, Hanna Adistyana. (2021). pp. 501-502.

65 MENDES, Pietro AS., HALL, Jeremy., MATOS, Stelvia., SILVESTRE, Bruno. 2014. Reforming Brazil's Offshore Oil and Gas Safety Regulatory Framework: Lessons From Norway, the United Kingdom and the United States." *Energy Policy*. Vol.74, pp.443-453.

66 ARIFIN, Ridwan, HANITA, Margaretha, RUNTURAMBI, Arthur Josias Simon. 2024. Maritime Border Formalities, Facilitation and Security Nexus: Reconstructing Immigration Clearance in Indonesia. *Marine Policy*. Vol.163, pp.106101.

To that end, international legal instruments have been prepared to complement each other in dealing with various security issues and attacks that have and will occur on offshore installations. In line with this effort, coastal countries have also participated in drafting and enforcing national legal instruments that are considered appropriate to the conditions they face. Historically, international legal instruments have provided formal restrictions on offshore installations, partly in various legal instruments or specifically through the 1988 Rome Protocol. While international legal instruments have provided formal protection for the security of offshore oil and gas installations, some national (domestic) legal instruments have gone beyond the international legal agreements in operation. Although national legal instruments aim to provide stronger protection for the existence and operation of offshore installations, there is no obligation on the part of the international community to comply with these domestic instruments when offshore installations are outside the territorial sea. The opposite is not true when offshore installations are in a country's maritime territory. The positive law of the country where the offshore installation is located is binding and is above the flag law of the installation (the ship's flag law) such as immigration, customs, health and security laws.

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