Dimitra Savva

Attorney-at-law, LL.M. (International and European Energy Law)

Tel. 694 52 59 173

dimitra_savva@hotmail.com

Offshore Energy Installations

There is a long tradition in states exercising their rights in the exploration and exploitation of their natural resources. It commenced with the right of applying cables and pipelines. This right constituted a general principle of the international law since the 19th century and states could not prevent other states from this freedom. As far as the offshore energy installations are concerned, the first coastal oil rigs were constructed in the United States in the late 19th century. Currently, there are around 900 large-scale oil and gas platforms around the world. In January 2013 the latest world record offshore was established off the coast of India at a depth of 3165 meters.[1]

As regards the definition of the term "installation" and especially "offshore energy installation", the International Law does not offer a specific definition, this might happen on purpose, the international community may not define offshore installations to its benefit, so that it can be decided in a case by case method, without limiting the right of the coastal state to perform any action needed for the exercising of their rights by excluding any kind of installation.

However, the European Union Law, offers a term in the EU Directive 30/2013 which concerns the safety of offshore oil and gas operations following more specific and specialized definitions. Particularly "Installation' means a stationary, fixed or mobile facility, or a combination of facilities permanently inter-connected by bridges or other structures, used for offshore oil and gas operations or in connection with such operations. Installations include mobile offshore drilling units only when they are stationed in offshore waters for drilling, production or other activities associated with offshore oil and gas operations.[2] While at the same time the term offshore is explained by the same Directive as follows: "offshore' means situated in the territorial sea, the Exclusive Economic Zone or the Continental Shelf of a Member State within the meaning of the United Nations Convention on the Law of the Sea.[3]

In conclusion, we can consider that an Offshore Energy Installation is a large structure in the marine environment used

[1] Global Ocean Commission, from Decline to Recovery: A Rescue Package for the Global Ocean (GOC 2014).

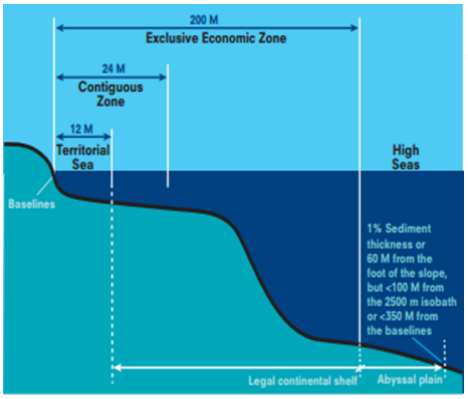
[2] Article 2, paragraph 19 of EU Directive 30/2013.

[3] article 2, paragraph 2 of EU Directive 30/2013

to house workers and machinery needed to exercise any activities related to the production of energy. As a result, the term includes a wide variety of installations, from those used for the production of energy from alternative sources of energy such as, wind generators or installations for wave energy, to installations for oil drilling. Offshore installations are not considered islands so they do not possess such status in the International Law, nor enjoy the rights and the maritime zones of the islands.[4]

International Law

The right to establish installations in the marine environment



The marine zones
Source: UNCLOS at 30, available at: http://www.un.org/depts/los/convention_agreements/pamphlet_unclos_at_30.pdf

I. Installations in the Territorial Sea

The coastal state has exclusive jurisdiction in the space of the territorial sea. Despite the fact that neither in the Convention on the Territorial Sea and the Contiguous Zone (1958) nor in the LOSC (1982) as well, there is specific reference to the right of the coastal state to construct energy installations, there is no doubt that the state enjoys the absolute and exclusive right to regulate all resource - related activities, something that includes energy installations due to the full sovereignty that the state enjoys. It is important though the coastal state not to harm or to impede the right of innocent passage of other vessels in the territorial sea.[5] The exclusive rights of the coastal State to construct and operate offshore installations, as well as any other activities in the territorial sea, must be consistent with the reasonable requirements of the rights of other States.[6] Therefore, the construction of installations in the territorial sea should not cause any harm to the rights and also to the sovereignty of any other states concerned and in particular the neighboring States.[7] The LOSC convention alludes only twice to installations in the territorial sea.[8] First of

[4] See article 259 LOSC
[5] articles 24 and 22 of UNCLOS
[6] H. Esmaeili, "The Legal Regime of Offshore Oil Rigs in International law" at P. 85, The University of New South Wales, 1999
[7] Trail Smelter Arbitration (USA v. Canada) (1941) 3 RIAA 1905
[8] Efthymios D. Papastavridis , Protecting Offshore Installations under International Law of the sea, available at:

all, the article 19 is referred to the right of the innocent passage which always has to go hand in hand with the international standards of the international law while paragraph 2 lists the cases when such right can be restricted or suspended completely. For a passage in the territorial sea to be considered innocent must not be "prejudicial to the peace, good order or security of the coastal State". More specifically, as regards the installations, if a vessel enters into "any act aimed at interfering with any systems of communication or any other facilities or installations of the coastal State",[9] it is regarded as prejudicial and according to article 25 of LOSC the coastal state has the right to take all appropriate measures to prevent this prejudicial vessel that aimed at interfering with the activity of an offshore installation from entering its territorial sea By this provision, it is understandable that all kinds of installations are included.

II. Installations in the Continental Shelf and Exclusive Economic Zone

The concept of the coastal state having rights to its Continental Shelf and its EEZ does not stretch back into antiquity, states began exploring the seabed and building oil and gas platforms after World War II. But after the 1960s the production and the installations increased significantly, especially after the oil crisis in 1973 when the importance of a more certain and effective legal regime of the waters subject to coastal state was necessary in order for an efficient and effective exploration and exploitation of coastal state's natural resources. As a result many developed states would benefit and would need to participate in the Third United Nations Conference of the Law of the Sea in 1982. The rights of the coastal state in its continental shelf and the Exclusive Economic zone were uncontentious in the United Nations Conference on the Law of the Sea III. Among the issues discussed in Conference III was the breadth of safety zones taking into account that the already existed 500 meter rule was considered by many states insufficient. However, because of the states' fear of disturbing the "delicate balance between the exploitation of natural resources and the freedom of navigation", the conference concluded in the re-adoption of the 500 meter rule, with a capability of extension under very specific circumstances.[10] The final articles of the Law of the Sea

http://www.energyatsea.law.uoa.gr/fileadmin/energyatsea.law.uoa.gr/uploads/Papastavridis.Protecting_Offshore_Energy_Installations_under_the_Law_of_the_Sea.pdf

[9] article 19, paragraph 2 (k) of UNCLOS

[10] Assaf Harel, Preventing Terrorist Attacks on Offshore Platforms: Do states Have Sufficient Legal Tools?, P. 142, Harvard National Security Journal / Vol. 4, 1992

Convention referred to the coastal state's right of establishing installations on Exclusive Economic Zone and the Continental Shelf were articles 60 and 80 which now constitute one of the main tools of the international community for the establishment of the right. In the article 80 of LOSC which refers to the right of the Coastal State in its Continental Shelf, it is mentioned that article 60 of the same Convention applies mutatis – mutandis on the Continental Shelf too. The year 2017 marks the 35th anniversary of the opening for signature of the 1982 United Nations Convention on the Law of the Sea, which up until October 2017, amounts to 168 parties (including the European Union).

III. Installations in the High Seas

The construction of offshore installations and artificial islands on the high seas is one of the freedoms conferred on States by the LOSC (1982). Undoubtedly any activity and any exercise of rights in the high seas by the states must be carried out with respect to "the interests of other States in their exercise of the freedom of the high seas, and also with due regard for the rights under this Convention with respect to activities in the Area".[11] The provision for establishing safety zones of 500 meter-breadth around installations in the marine environment applies to the high seas too. It is agreed that the breadth of such a safety zone would still be limited to 500 meters, since it seems strange for an installation beyond coastal state jurisdiction to be restricted this way without similar restrictions on a high seas installation being imposed.[12] The present author also believes that taking into account that the point of the safety zones is to protect the installation itself and the people working on it, it would not make any sense if in the first case 500 meters are sufficient for the safety whereas in the other case 500 meters are not enough.

IMO Guidelines – Attempts for larger Safety zones

Although, International Maritime Organization (IMO) is mentioned by name only once in the text of the LOSC, many articles of the Convention, in their reference to "the competent international organization" implicitly recognize the standard – setting competence of IMO in the fields of navigation, pollution and

[11] See Article 87, paragraph 2 of LOSC. The rights of other states that are included in this article are basically the right of fishery (article 116), scientific research (article 87 (f)), laying or maintaining submarine cables or pipelines (article 112 (1)) and the conservation of living resources (article 110).

[12] Kaye, S. (2007). International Measures to Protect Oil Platforms, Pipelines and Submarine Cables from Attack. [online] Available at: http://www.Heinonline.org [Accessed 9 Jul. 2016],P. 388,

other marine rights and responsibilities of states. As regards the offshore energy installations, IMO follows the relevant provisions of LOSC, adopting the Resolution A.671 on "Safety Zones and Safety of Navigation around Offshore installations and structures" in 1989 (revoking resolutions A.621). The Assembly Resolution relied on article 60 of LOSC.

The basic points of the above IMO Guidelines ensure the states' right of exploration and exploitation of their natural resources as long as this exercise does not interfere with the right of navigation of other states. It grants the important right of the establishment of the 500 meter safety zones around installations suggesting all states to take all necessary measures to avoid entering these safety zones, providing of course some exceptions. At the same, the coastal state must take all necessary measures to prevent any infringements and violations and if any occur, it is allowed to take action according to International Law. After the adoption of the Guideline, states continued to question the efficiency of the 500 meter zone for the safety of the offshore installations.[13] But any attempt for the extension of safety zones via IMO in the last years has failed. As a result, not only is there no example of IMO authorization for safety zones larger than 500 meters, but also there are no guidelines or procedures for evaluating requests for larger safety zones.[14] Judging by the IMO's approach so far, it seems rather unlikely that it would approve any extension of safety zone in the near future.

Safety Zones

Safety zones are 500m radius from a central point where the installation is locates and they were designed to create an area where there could be enough sea room between ships and installations to prevent accidents. It is worth mentioning that safety zones are not considered in any way territorial sea so they do not possess the equivalent rights.[15] The right to establish safety zones in accordance with the international law is enshrined in the article 260 of LOSC.

The purpose of safety zones is:

- The protection of navigation;
- The protection of the installation;
- And the protection of the people working on the installation.

Safety zones must be respected by all other states and foreign vessels must not

[13] James Kraska, Raul Pedrozo, International Maritime Security Law, Martinus Nijhoff Publishers, 2013, P. 79.
[14] Harel, supra note 10, P.152
[15] Catherine Redgwell, International and European Regulation of the energy sector. Para. 2.101

enter this area and it is clear form LOSC that they cannot be extended. A ship entering the safety zone is in violation of this provision of the LOSC and cannot invoke the freedom of navigation as a justification for this infraction.[16]

Jurisdiction

Exclusive jurisdiction– prescriptive jurisdiction – enforcement jurisdiction

Despite the fact that the physical form of offshore structures constitutes not an island, so states could not theoretically exercise sovereignty on them, in paragraph 1 (b)(i) article 56 of LOSC it is mentioned that the coastal state has jurisdiction "as provided for in the relevant provisions of this Convention with regard to the establishment and use of artificial islands, installations and structures. From paragraph 1 and 2 of article 60 as mentioned before the coastal state has not only "the exclusive right to construct, to authorize and regulate the construction, operation and use" of installations, but also the "exclusive jurisdiction" over such installations. As far as the installations at high seas are concerned, although it is not clearly mentioned, by the language of the article 87 "freedom to construct artificial islands and other installations permitted under international law, subject to Part VI" and also by the language of article 109 which refers to a registration system,[17] it is understood that the coastal state has exclusive jurisdiction in this case too. Although states do not enjoy exclusive jurisdiction in the safety zone, they do have the right to take any "appropriate measures to ensure the safety both of navigation and of the artificial islands, installations and structures".[18] The said provision in combination with the general obligation of all ships to respect those zone and the fact that safety zones do not exist ipso facto but they must be declared by the coastal state, further imply the existence of the prescriptive jurisdiction of states in this area. Thus, the coastal state can legislate for the safety of the offshore energy installation and the navigation in the area of the 500 meter safety zone. States, as regards the relative legislation usually choose to ban generally all ships

[16] Safety Zones around offshore installations could be entered only under very specific circumstances which are describing in the article 1(e) of the IMO resolution A.

[17] "The State of registry of the installation" which implies that States may maintain a registry of installations beyond national jurisdiction.

[18] Article 60, paragraph 4 LOSC

from navigating in the safety zone, although this practice has encountered skepticism.[19]

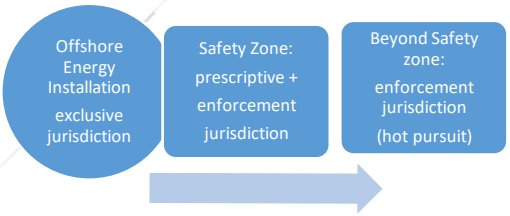
The language of the LOSC implies the right of the coastal state to impose and implement the measures and relative legislation in the safety zone. Taking into account that ships must respect the safety zones and the fact that measures may be imposed, it is widely accepted that the coastal state enjoys enforcement jurisdiction too in the area of the safety zone. The enforcement jurisdiction of the coastal state is recognized and described also in the IMO resolutions A. 671(16). In the article 3, paragraph 3.1 of the Annex of the said resolutions it is mentioned that in case of infringements the state should "take action in accordance with international law", implementing the relative laws and regulations set for the offshore energy installations.

Enforcement Jurisdiction beyond safety zone - the right of hot pursuit

According to the article 111[20], paragraph 2 of LOSC, states are offered with the right to impose their enforcement jurisdiction beyond the safety zone. More specifically, under certain circumstances the coastal state can pursue a foreign flag vessel in order to impose its relative national legislation responding to a peril for the installation occurred.

State's practice

The 500-meter-zones are considered by the majority not suitable enough to secure the complete protection of the offshore installation. The 500-meter- zones indeed



offer a very limited protection, taking into account that a vessel approaching an offshore installation, at a speed of 25 Knots, would get from the outer edge of the zone to the installation in just 39 seconds.[21] It is supported that larger safety zones would provide states the opportunity to examine the potential threats better before they approach the offshore installation closely, and also if a potential threat proves to be a danger and important, states would have more time and would be more easily ready to

[19] Tho Pesch, S. (2015). Coastal State Jurisdiction around Installations: Safety Zones in the Law of the Sea. The International Journal of Marine and Coastal Law, 30(3), P.526

[20] Applies the right of hot pursuit mutatis mutandis to violations of the law of the territorial state in the EEZ, or the Continental shelf, including safety zones around continental shelf installations.

[21] A speed of 25 Knots is approximately 12.9 meters per second. A ship travelling at this speed would cover 500 meters in 38.85 seconds.

confront it. On the other hand, it is also supported that the existing rule is appropriate, believing that no matter how large safety zones are, they will never be large enough to protect offshore installations so a potential extend of the 500 meter safety zone would not be helpful.[22]

State's practice in relation to safety zone is largely consistent with the LOSC. Despite the fact that the breadth of safety zones as exists today is doubted for its efficiency, there are many states that have widely accepted the 500 meter rule and have incorporated it in their national legislation, such as U.S., Belgium, Bulgaria, Denmark, France, the Russian Federation, Sweden, the United Kingdom, Malta, Poland and Venezuela.[23] On the other hand, there are states that doubt the 500-meter-rule of the International Law and haven't incorporated this rule in their domestic legislation. Norway, imposes limitations on fishing and anchoring in areas outside a 500-meter radius of platforms[24].

Warning zones

Another practice that is usually followed by states is the establishment of the warning areas. In particular, states have come to the idea of these zones in which at first sight the freedom of navigation cannot be suspended because such zone have only an informative use, in other words a "Caution Note". Such zone is not clearly forbidden by the International Law for its informative character. In the Arctic Sunrise Case, which will be analyzed below, the Court decided differently and concluded that warning zones do not bear a mandatory character and offer only recommendations, in other words they constitute a zone in which states cannot impose rules nor have jurisdiction.

Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms located on the Continental Shelf (SUA Protocol)

The SUA protocol is a protocol on the 1988 Convention on the Suppression of Unlawful Acts against the Safety of Maritime Navigation signed in 2005 which calls upon states to impose its prescriptive and enforcement jurisdiction, when needed, taking all necessary measures to deal with specific offences beyond safety zones in order to protect its offshore installation. Although, it is noteworthy that the protocol, not only does not describe specific measures for the suspension of

[22] Harel, supra note 10. P. 158
[23] Esmaeili, supra note 6, app. at 250–51
[24] Norway has prohibited fishing and anchoring outside its safety zone in certain parts of its Ekofisk and Statfjord field. Geir Ulfstein, the Conflict Between Petroleum Production, Navigation and Fisheries in International Law, 19 Ocean Dev & INT'L. 229, 239 (1988) to Harel, supra note 10, P.153

any unlawful acts, providing only generally the right of each state party to "take all necessary measures as may be necessary to establish its jurisdiction over the offences set in articles",[25] but also promotes the coastal state only after the unlawful act takes place, implementing its jurisdiction, without provisions for the prevention of any unlawful act.

The Arctic Sunrise Dispute

The Arctic Sunrise Dispute constitutes the most known dispute in relation to the protection of offshore energy installations. In summary, on 18 September 2013, the Arctic Sunrise launched 5 boats near the perimeter of the 3- nautical-mile zone that moved in the direction of the Prirazlomnaya. There is no indication that the Arctic Sunrise itself at any time entered the safety zone around the rig, but it did enter the 3-nautical-mile zone at one point. A number of people attempted to board the Prirazlomnaya from the boats launched by the Arctic Sunrise and two of them were arrested by the Russian Coast Guard. Following a hot pursuit of the Arctic Sunrise, the Russian Federation seized the vessel. The Netherlands considered that the Russian Federation was not granted with the right to seize the Greenpeace vessel, exercising its enforcement jurisdiction, and such an act opposed to the freedom of navigation stated in LOSC, while the Russian Federation stated that the acts of the Arctic Sunrise constituted acts of piracy and terrorism. The Decision of the Arbitral Tribunal Constituted under Annex VII of LOSC justified the claims of Netherlands. Specifically, it stated that the Arbitral Tribunal recognizes its full jurisdiction over the case ordering the Russian Federation to compensate Netherlands for any damage and to return all objects belonging to the Arctic Sunrise and the people on board.[26]

Decommissioning – Dumping

One of the main issues that is normal to be raised, is what happens when the offshore energy installation completes its purpose and is no longer in use. As far as the international legal framework for the decommissioning and the dumping of the offshore energy installations is concerned, the international conventions applied are the following:

[25] Article 3 of the SUA Protocol

[26] For more information about the Arctic Sunrise Case see: PCA Case Nº 2014-02, In The Matter Of The Arctic Sunrise Arbitration - Before - An Arbitral Tribunal Constituted Under Annex Vii To The 1982 United Nations Convention On The Law Of The Sea. Available at: https://www.pcacases.com/web/sendAttach/1438, also Alex G. Oude Elferink, The Russian Federation and the Arctic Sunrise Case: Hot Pursuit and Other Issues under the LOSC, 92 INT'L L. STUD. 381 (2016), vol 92, available at: https://stockton.usnwc.edu/cgi/viewcontent.cgi?article=1692&context=ils

Geneva Convention on the Continental Shelf (1958)

The first major international convention concerning the removal of offshore installations is the 1958 United Nations Geneva Convention on the Continental Shelf. The critical provision is Article 5(5), which states that: “Any installations which are abandoned or disused must be entirely removed.” Article 5(5) provides an explicit obligation of total removal and does not allow its 57 contracting parties to do anything less than this requirement.

London Dumping Convention 1972

The "Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972", the "London Convention" for short, is one of the first global conventions to protect the marine environment from human activities and has been in force since 1975 regulating dumping activities globally. Under the definition of the London Dumping Convention, the abandonment of a structure (such as an offshore platform) at sea, either totally or partially, for the purpose of deliberate disposal, is considered dumping. The basic rules of the London Dumping Convention are provided in Article IV which contains a general prohibition against dumping of any "wastes or other matter in whatever form or condition except as otherwise specified".

1982 UN Law of the Sea Convention (LOSC)

As far as dumping in the LOSC convention is concerned, the relevant paragraph for the decommissioning (article 60, paragraph 3), shows to be a little less strict than the equivalent one of the Geneva Convention. This seems to happen because of the removal of the word “entirely” which permits partial removal. It provides general principals on the prevention, reduction and control of marine pollution including the pollution caused by dumping. States should take all appropriate measures to enforce “laws and regulations adopted in accordance with this Convention and applicable international rules and standards established through competent international organizations or diplomatic conference for the prevention, reduction and control of pollution of the marine environment by dumping.”[27]

I.M.O. Guidelines A.672

The international standards referred in the LOSC as regards the decommissioning of the abandoned offshore installations were further specialized in the “Guidelines and standards for the removal of offshore installations and structures on the continental shelf and in the exclusive

[27] Article 116 of LOSC

economic zone", issued in 1989. Their nature corresponds to Guidelines, meaning recommendations, and not to a legally binding text, constituting the first detailed rules on offshore removal and decommissioning. Generally, complete removal is suggested, apart from some cases in which partial removal is provided, approaching them in a case by case method

European Union Law

The majority of oil and gas production in Europe takes place offshore and there are currently over 1000 operations in European waters. Given the EU's growing energy demand, these operations are crucial for helping ensure a secure supply of energy. However, after the well-known Deepwater Horizon disaster in 2010, the need for comprehensive safety measures was enhanced.

Directive 2013/30/EU of the European Parliament and of the Council

The EU Directive 2013/30 on safety of offshore oil and gas operations amending Directive 2004/35/EC, was issued on the 12 of June 2013 and set the general principles and the appropriate measures that states have to take for the safety of the offshore energy activities (offshore oil and gas activities). The Directive follows the general idea dominating the international law about the safety of the offshore energy installation balancing the right of the exploitation and exploration of the natural resources with the freedom of navigation. It considers that a safety zone around installations must be established without escaping the internationally accepted 500 meter theory. It also provides the appointment of a competent authority with certain regulatory functions. The European Commission issued a set of rules for the prevention of various accidents and for the *prompt* and efficient reaction in case of an accident.[28] Apart from this point, for the reasonable exploration and exploitation of the oil and gas offshore resources it also provides relative measures and provisions about decommissioning and permanent abandonment. A very characteristic point is that before exploration or production begins, companies must prepare a Major Hazard Report for their offshore installation, this report must contain a risk assessment and an emergency response plan. Also, companies will be fully liable for environmental damages caused to protected marine species and natural habitats.

[28] Offshore oil and gas safety, European Commission, available at: https://ec.europa.eu/energy/en/topics/oil-gas-and-coal/offshore-oil-and-gas-safety

In 2015, the European Commission also published a Report and a Staff Working Document on liability and compensation in case of offshore accidents in Europe. To enhance offshore safety even more, the European Commission cooperates with its international partners to implement the highest safety standards worldwide. The offshore inspectors of EU countries also work together through the European Union Offshore Oil and Gas Authorities Group (EUOAG) to promote the best possible practices and improve standards.

Conclusion

The right of states to establish offshore energy installations is fundamental and has evolved through the years. The safety of the offshore energy installation is critical by any point of view taking into account that different aspects have to be considered for the balancing of other states' rights, such other states' freedom of navigation and safety, the safety of people working on the installation and of course the safety of the installation itself and the environment. The said rights and obligations are stipulated in the LOSC, the most important convention for the law of the sea, in which EU itself constitutes a party too.

It is questionable though if the existing international legal framework is efficient for the demands of the current international community. States are expressing their arguments about the measures provided more and more, and critical incidents that may threaten the offshore energy installation are likely to happen more frequently. The 500 meter zone, may not be considered efficient any more, something that states explicitly mention, although at the same time, all states are afraid of any limitations of the navigation of the freedom and do not want to interfere with it by establishing larger safety zones facing once again the balancing of rights problem.

However, in the present author's opinion, it would be effective if an amending of LOSC took place, not only for granting the right of expansion of safety zones beyond 500 meters, if necessary, but also including the offshore installations in many articles in which rights of acting are granted to states, such as in piracy cases, considering that an act against an offshore installation cannot be described as piracy because it is not provided so. Also, IMO could grant authorizations for the said expansion more easily but something like that seems rather unlikely in the near future.