CIL
Centre for International Law
www.cil.nus.edu.sg

NUS
National University of Singapore

CENTRE FOR INTERNATIONAL LAW

WORKING PAPER

Global Legal Regime on the Decommissioning of

Offshore Installations and Structures

By

Assoc Prof Robert C Beckman,

Director, Centre for International Law, National University of Singapore

DRAFT ONLY

Not for Circulation or Citation without the written consent of the author
Comments on this draft are welcome - send to cildir@nus.edu.sg

Global Legal Regime on the Decommissioning of Offshore Installations and Structures

Robert Beckman

This paper outlines the global legal regime for offshore installations and structures in so far as it is relevant to the decommissioning of offshore oil and gas installations and structures. Several points can be made about the current global legal regime. First, the provisions in UNCLOS set the standard for all States. Second, as provided in article 60(3) and article 80 of UNCLOS, any installations or structures in the EEZ or on the continental shelf which are abandoned or disused must be removed to ensure safety of navigation, taking into account any generally accepted international rules and standards, including the 1989 IMO Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone. Third, the abandonment or disposal of installations or structures in any maritime zone except internal waters would be classified as "dumping", and constitutes a breach of the obligations set out in article 210 of UNCLOS and the 1972 London Convention on dumping. Fourth, the placement of installations and structures on the seabed for purposes other than disposal, such as for conversion to an artificial reef, are not classified as dumping under the 1982 Convention or under the 1972 London Convention or its 1996 Protocol.

Finally, States have an obligation under article 208 of UNCLOS to adopt laws and regulations and take other measures to prevent, reduce and control pollution of the marine environment arising from or in connection with seabed activities subject to their jurisdiction. Such laws and regulations and measures shall be no less effective than the "global and regional rules, standards and recommended practices and procedures" established by States through competent international organizations or diplomatic conferences. Unfortunately, the international community has yet to establish any global rules, standards and recommended practices and procedures. Some regions have established such rules, standards and recommended practices and procedures, but others have not. This is the major gap in the existing legal regime. The international community should make the development of such rules a high priority.

Global Legal Regime on the Decommissioning of Offshore Installations and Structures

Robert Beckman

Introduction

The purpose of this paper is to outline the global legal regime for offshore installations and structures in so far as it is relevant to the decommissioning of offshore oil and gas installations and structures. After briefly describing the jurisdiction of coastal States over offshore installations and structures, I will outline the global legal regime governing the following matters: (1) the removal of disused or abandoned installations and structures; (2) the disposal of offshore installations and structures by dumping; and (3) pollution of the marine environment from offshore installations and structures. I will then analyze the extent to which this legal regime governs the use of offshore installations and structures for new purposes, such as for the creation of artificial reefs. I will then draw some conclusions from the analysis.

Jurisdiction of Coastal States over Installations and Structures

Coastal States have sovereignty in their internal waters, archipelagic waters[1] and territorial sea[2]. In these maritime zones States have jurisdiction to apply their domestic laws and regulations, subject to the rules concerning passage of foreign ships through the territorial sea and archipelagic waters. Therefore, coastal States have the right to govern installations and structures located in these zones.

The exclusive economic zone (EEZ) and the continental shelf are resource or economic zones which are not subject to the sovereignty of the coastal State. However, the United Nations Convention on the Law of the Sea (UNCLOS) expressly provides that in these zones the coastal State has "the exclusive right to construct and to authorize and regulate the construction, operation and use of … installations and structures" for the purpose of exploring and exploiting the natural resources and for other economic purposes.[3]

[1] United Nations Convention on the Law of the Sea (UNCLOS), article 49.
[2] Ibid., article 2
[3] Ibid., articles 60(1) and 80.

The Removal of Disused or Abandoned Offshore Installations or Structures

1958 Convention on the Continental Shelf

The maritime zone known as the continental shelf arose after World War II. It began with the Truman Proclamation in 1946[4], whereby the United States announced that it regarded the natural resources of the sea bed and subsoil of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, and subject to its jurisdiction and control.

The International Law Commission (ILC) undertook a study on the continental shelf in 1951 as part of its wider study on the law of the sea. In 1956 the ILC completed its study and incorporated all of its draft articles concerning the law of the sea into a final draft on the law of the sea.[5]

Following the discussion of the report of the ILC, the General Assembly adopted resolution 1105 (XI) of 21 February 1957, by which it decided to convene the United Nations Conference on the Law of the Sea (First LOS Conference) in Geneva from 24 February to 27 April of 1958. Eighty-six states participated in the conference. Four separate conventions were adopted on 29 April 1958 by the First LOS Conference.[6] One of the conventions adopted was the 1958 Convention on the Continental Shelf (1958 Convention).[7]

The 1958 Convention was based on the draft articles on the continental shelf prepared by the ILC, with some changes. One of the changes made at the First LOS Conference concerned the removal of offshore installations. The draft adopted by the ILC contained no provision on the removal of abandoned or disused installations from the continental shelf. However, at the First LOS Conference the delegation from the United Kingdom proposed the addition of a provision on the removal of offshore platforms.[8] As a result, the 1958 Convention contains the following language in article 5(5): "Any installations which are abandoned or disused must be entirely removed".

---

[4] Presidential Proclamation No. 2667, September 28, 1945, 59 Stat. 884 (1945), 13 Dept of State Bulletin 485 (1945).
[5] Report of the International Law Commission, 1956, UNGAOR, 11th Session, Supp. No. 9 (A/3159) at 40, [1956] 2 YBIL 253.
[6] For a history of the First LOS Conference and the records of the proceedings, see <http://untreaty.un.org/cod/diplomaticconferences/lawofthesea-1958/lawofthesea-1958.html>
[7] Adopted in Geneva on 27 April 1958, entered into force on 10 June 1964, 499 UNTS 311.
[8] Official Records of the United Nations Conference on the Law of the Sea, Volume VI: Fourth Committee (Continental Shelf) Summary Records, Fifth Meeting, 7 March 1958, page 4.

1982 UNCLOS, Articles 60 and 80

The Third United Nations Conference on the Law of the Sea (Third LOS Conference)[9] began in 1973 and concluded with the adoption of UNCLOS in 1982. The early drafts at the Third LOS Conference contained the same language as that of the 1958 Convention on the removal of installations. The early drafts contained a clause stating that "Any installations or structures which are abandoned or disused must be entirely removed".[10]

However, at the Ninth Session of the Third LOS Conference in 1980 concern was expressed about the provision establishing an unconditional obligation to remove installations in the event that they were abandoned or no longer used.[11] A memorandum from the oil and gas industry proposed that removal should be required only when the installations or structures present a danger to navigation or to other legitimate uses of the sea or the environment. It was argued that such a provision would avoid the potentially enormous cost of removing all installations and structures entirely.[12]

At the Tenth Session in 1981 the United Kingdom and Canada submitted informal proposals to clarify the obligation to remove installations and platforms, but these proposals were not accepted. At the Eleventh Session in 1982 the United Kingdom submitted a modified version of its earlier proposal. This draft, with minor adjustments recommended by the Drafting Committee, was included in the text of UNCLOS.[13] The final provision is contained in article 60(3), and reads as follows:

> 3. Due notice must be given of the construction of such artificial islands, installations or structures, and permanent means for giving warning of their presence must be maintained. Any installations or structures which are abandoned or disused shall be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by the competent international organization. Such removal shall also have due regard to fishing, the protection of the marine environment and the rights and duties of other States. Appropriate publicity shall be given to the depth, position and dimensions of any installations or structures not entirely removed.

Several observations can be made about article 60(3).

---

[9] For a history of the Third LOS Conference on the Law of the Sea, see <http://untreaty.un.org/cod/diplomaticconferences/lawofthesea-1982/lawofthesea-1982.html>.
[10] Myron H. Nordquist, ed., United Nations Convention on the Law of the Sea: A Commentary, Volume II, Satya Nandan & Shabtei Rosenne, eds, (Centre for Oceans Law and Policy, Martinus Nijhoff) 579-580.
[11] Ibid., at 582.
[12] Ibid.
[13] Ibid., at 583.

First, article 60 applies to installations and structures in the EEZ. Article 80 provides that article 60 applies *mutatis mutandis* to installations and structures on the continental shelf. The provisions on the removal of installations and structures do not apply in maritime zones under the sovereignty of the coastal State, i.e., in the territorial sea, archipelagic waters or internal waters.

Second, article 60(3) requires removal of abandoned or disused platforms to ensure safety of navigation, taking into account any generally accepted international standards established by the competent international organization. The primarily reason for requiring removal is the threat posed by installations and structures to navigation. However, decisions on removal must also have due regard to fishing, the protection of the marine environment and the rights and duties of other States.

Third, article 60(3) imposes an obligation on coastal States to warn of the presence of the structures and installations. The first line of the provision requires that due notice must be given of the construction of such installations and structures, and that a "permanent" means for giving warning of their presence must be maintained. The last line provides that appropriate publicity shall be given to the depth, position and dimensions of any installations or structures not entirely removed.

Fourth, the language in the last line referring to "installations and structures not entirely removed" makes it clear that partial removal was envisaged.

Fifth, article 60 refers to generally accepted international standards established by the "competent international organization", without specifying a particular organization. However, since the purpose of the removal is to ensure the safety of navigation, the competent international organization would be the International Maritime Organization (IMO).

1989 IMO Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone (1989 Guidelines)

History of the 1989 Guidelines

The 1989 IMO Guidelines were drafted by IMO Maritime Safety Committee (MSC) and approved by the MSC during its 55th Session in 1988.[14] It is logical that the Guidelines were prepared by the MSC

[14] For an excellent history of the Guidelines, see George C. Kasoulides, "Removal of offshore platforms and the development of international standards", Marine Policy 13 (1989) 249-265; as updated in Marine Policy 14 (1990) 84-86.

because responsibility for the safety of navigation lies with the IMO body, and also because article 60(3) of UNCLOS expressly provides that "Any installations or structures which are abandoned or disused shall be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by the competent international organization". However, article 60(3) also provides that "Such removal shall also have due regard to fishing, the protection of the marine environment and the rights and duties of other States". Commentators have argued that the draft Guidelines should have been submitted at an early stage to the UN bodies responsible for these matters, including the Food and Agricultural Organization Fisheries Division, the United Nations Environment Programme (UNEP), and the Contracting Parties of the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (1972 London Convention). The draft Guidelines were not referred to these organizations until after they had been adopted by the MSC.

The draft Guidelines were reconsidered by the MSC during its 57th session in April 1989 in light of the comments and recommendations from the above organizations as well as the International Hydrographic Bureau. UNEP had been especially critical of the Guidelines because they did not give sufficient priority to protecting the marine environment. The MSC discussed the recommendations submitted by the other organizations briefly, but did not consider it necessary to make any changes to its draft Guidelines. The MSC then submitted a draft resolution to the Assembly of the IMO, which adopted the resolution containing the Guidelines in November 1989.

As the title of the 1989 Guidelines suggests, they are tied to articles 60 and 80 of UNCLOS, and they apply only to installations and structures in the EEZ or on the continental shelf. They do not apply to installations and structures in the territorial sea, archipelagic waters or internal waters.

As discussed earlier, article 60(3) of UNCLOS provides that any installations or structures which are abandoned or disused shall be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by the competent international organization. The 1989 Guidelines were adopted by the Assembly, the governing body of the IMO which consists of all 170 member States and meets every two years. Resolutions of the Assembly are normally adopted by consensus and accordingly reflect global agreement by all IMO Members. Parties to UNCLOS are

expected to conform to these rules and standards, bearing in mind the need to adapt them to the particular circumstances of each case.[15]

Therefore, States Parties to UNCLOS must take the 1989 Guidelines into account when deciding how to remove abandoned or disused platforms. In other words, the 1989 Guidelines are not legally binding, but they must be taken into account.

Summary of the 1989 Guidelines

The 1989 Guidelines are divided into three parts - General Removal Requirement, Guidelines and Standards. The General Removal Requirement provides that abandoned or disused offshore installations or structures on any continental shelf or in any EEZ are to be removed, except where non-removal or partial removal is consistent with the Guidelines and Standards.

The Guidelines provide that the decision to allow an offshore installation, structure, or parts thereof, to remain on the sea-bed should be based, in particular, on a case-by-case evaluation by the coastal State with jurisdiction over the installation or structure. The evaluation should include the following matters:

1) any potential effect on the safety of surface or subsurface navigation, or of other uses of the sea;
2) the rate of deterioration of the material and its present and possible future effect on the marine environment;
3) the potential effect on the marine environment, including living resources;
4) the risk that the material will shift from its position at some future time;
5) the costs, technical feasibility, and risks of injury to personnel associated with removal of the installation or structure; and
6) the determination of a new use or other reasonable justification for allowing the installation or structure or parts thereof to remain on the sea-bed.

[15] On the relationship between UNCLOS and IMO instruments, see "Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization", Study by the Secretariat of the International Maritime Organization, IMO Doc. LEG/MISC.6, 10 September 2008. Available online at <http://www.imo.org/ourwork/legal/documents/6.pdf>.

The Guidelines also provide that the process for allowing an offshore installation or structure, or parts thereof, to remain on the sea-bed should include the following actions by the coastal State:

1) special conditions under which an installation or structure, or parts thereof, will be allowed to remain on the sea-bed;
2) the drawing up of a specific plan, adopted by the coastal State, to monitor the accumulation and deterioration of material left on the sea-bed to ensure there is no subsequent adverse impact on navigation, other uses of the sea or the marine environment;
3) advance notice to mariners as to the specific position, dimensions, surveyed depth and markings of any installations or structures not entirely removed from the seabed; and
4) advance notice to appropriate hydrographic services to allow for timely revision of nautical charts.

The Standards provide that one category of installations or structures should be entirely removed without any exceptions. These are installations and structures located in approaches to or in straits used for international navigation or routes used for international navigation through archipelagic waters, in customary deep-draught sea lanes, or in, or immediately adjacent to, routeing systems which have been adopted by the IMO, provided that they no longer serve the primary purpose for which they were originally designed or installed.

The Standards also provide that two other categories of installations and structures should be entirely removed, unless entire removal is not technically feasible or would involve extreme cost or an unacceptable risk to personnel or the marine environment. These categories are:

1) all abandoned or disused installations or structures standing in less than 75 m of water and weighing less than 4,000 tonnes in air, excluding the deck and superstructure.
2) all abandoned or disused installations or structures emplaced on the sea-bed on or after 1 January 1998, standing in less than 100 m of water and weighing less than 4,000 tonnes in air, excluding the deck and superstructure.

The Standards also provide that after 1 January 1998, all installations are to be designed and built so that their entire removal is feasible.

Analysis of the 1989 Guidelines

Some experts have suggested that these provisions requiring removal except in very limited circumstances show that the ultimate goal of the Guidelines is complete removal, and that the allowance in the Guidelines for partial removal is only a transitional measure.[16]

However, the Guidelines contain several provisions which indicate that partial removal and placement (rather than disposal) are available options. First, they provide that an unobstructed water column sufficient to ensure safety of navigation, but not less than 55 m, should be provided above any partially removed installation or structure which does not project above the surface of the sea.[17] Second, they provide that the coastal State should ensure that the position, surveyed depth and dimensions of material from any installation or structure which has not been entirely removed from the sea-bed are indicated on nautical charts and that any remains are, where necessary, properly marked with aids to navigation.[18]

The Standards also provide for the possibility of converting installations or structures into artificial reefs. Paragraph 3.12 provides that where living resources can be enhanced by the placement on the sea-bed of material from removed installations or structures (e.g. to create an artificial reef), such material should be located well away from customary traffic lanes, taking into account these Guidelines and Standards and other relevant standards for the maintenance of maritime safety.

The 1989 Guidelines have been criticized on several counts. First, they do not address the issue of the removal or decommissioning of pipelines associated with the installations and structures or the surrounding debris resulting from operations or cutting piles. Second, they are primarily concerned with safety of navigation, and do not give sufficient consideration to fishing interests.[19] Third, they do not give sufficient weight to environmental protection, in that they do not require an environmental impact assessment, and do not contain provisions for environmental rehabilitation and site monitoring.[20]

---

[16] Zhiguo Gao, "Current Issues of International Law of Offshore Abandonment, with Special Reference to the United Kingdom", Ocean Development and International Law, 28:59-78 (1997) at 71.

[17] Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone, (IMO Resolution A.672 (16), adopted on 19 October 1989) para 3.6.

[18] Ibid, para 3.8.

[19] Gao, *supra* note 16, at 73.

[20] Kasoulides, *supra* note 14, "Marine Policy Update" at 85.

Fourth, they fail to address the procedures and standards that should be followed for the placement of an installation or structure for purposes other than mere disposal.

Judge Zhiguo Gao of the International Tribunal of the Law of the Sea opined in 1997 that there is a general feeling and belief that the Guidelines will be widely followed because of their rationality and practicality.[21] He also submitted that it is politically feasible and practically desirable to transform the Guidelines into legally binding rules, although he did not say how this could be accomplished. However, as will be seen in the next section, the Contracting Parties to the 1972 London Convention continued to be concerned about the issue.

Residual Liability for abandoned or partially removed installations and structures

Article 60(2) of UNCLOS provides that the coastal State has exclusive jurisdiction over installations and structures in its EEZ or on its continental shelf. Article 60(3) provides that due notice must be given of the construction of installations and structures, and "permanent means for giving warning of their presence must be maintained". Article 60(3) of UNCLOS also requires removal of abandoned or disused platforms to ensure safety of navigation, taking into account any generally accepted international standards established by the competent international organization. In addition, it provides that appropriate publicity shall be given to the depth, position and dimensions of any installations or structures not entirely removed.

Paragraph 2.4 of the 1989 Guidelines further provides that the process for allowing an offshore installation or structure, or parts thereof, to remain on the sea-bed should include the following actions by the coastal State with official authorization identifying the jurisdiction over the installation or structure:

1) the adoption of measures defining special conditions under which an installation or structure, or parts thereof, will be allowed to remain on the sea-bed;
2) the drawing up of a specific plan, adopted by the coastal State, to monitor the accumulation and deterioration of material left on the sea-bed to ensure there is no subsequent adverse impact on navigation, other uses of the sea or the marine environment;

[21] Gao, *supra* note 16, at 72.

3) giving advance notice to mariners as to the specific position, dimensions, surveyed depth and markings of any installations or structures not entirely removed from the seabed; and

4) giving advance notice to appropriate hydrographic services to allow for timely revision of nautical charts.

The 1989 Guidelines also provide that the coastal State has the following additional obligations with respect to installations or structures that are not entirely removed:

> 3.3 Removal should be performed in such a way as to cause no significant adverse effects upon navigation or the marine environment. Installations should continue to be marked in accordance with IALA recommendations prior to the completion of any partial or complete removal that may be required. Details of the position and dimensions of any installations remaining after the removal operations should be promptly passed to the relevant national authorities and to one of the world charting hydrographic authorities. The means of removal or partial removal should not cause a significant adverse effect on living resources of the marine environment, especially threatened and endangered species.
>
> 3.6 Any abandoned or disused installation or structure, or part thereof, which projects above the surface of the sea should be adequately maintained to prevent structural failure. In cases of partial removal referred to in paragraphs 3.4.2 or 3.5, an unobstructed water column sufficient to ensure safety of navigation, but not less than 55 m, should be provided above any partially removed installation or structure which does not project above the surface of the sea.
>
> 3.8 The coastal State should ensure that the position, surveyed depth and dimensions of material from any installation or structure which has not been entirely removed from the sea-bed are indicated on nautical charts and that any remains are, where necessary, properly marked with aids to navigation. The coastal State should also ensure that advance notice of at least 120 days is issued to advise mariners and appropriate hydrographic services of the change in the status of the installation or structure.
>
> 3.9 Prior to giving consent to the partial removal of any installation or structure, the coastal State should satisfy itself that any remaining materials will remain on location on the sea-bed and not move under the influence of waves, tides, currents, storms or other foreseeable natural causes so as to cause a hazard to navigation.
>
> 3.10 The coastal State should identify the party responsible for maintaining the aids to navigation if they are deemed necessary to mark the position of any obstruction to navigation, and for monitoring the condition of remaining material. The coastal State should also ensure that the responsible party conducts periodic monitoring, as necessary, to ensure continued compliance with these guidelines and standards.

> 3.11 The coastal State should ensure that legal title to installations and structures which have not been entirely removed from the sea-bed is unambiguous and that responsibility for maintenance and the financial ability to assume liability for future damages are clearly established.

The phrase "party responsible" in paragraph 3.10 refers to any juridical or physical person identified by the coastal State for a purpose mentioned in that paragraph.

These provisions suggest that the coastal State has a significant number of obligations with respect to installations or structures that are not totally removed. They also suggest that the coastal State has a significant amount of potential residual liability for installations and structures which are not totally removed. These potential costs must be weighed against any advantages in only partially removing the installations and structures.

It must be remembered that the 1989 IMO Guidelines apply only to installations and structures in the EEZ and on the continental shelf. They do not apply to installations and structures in the territorial sea or in archipelagic waters. The only obligation that applies in the territorial sea is article 24(2) of UNCLOS, which provides that the coastal State "shall give publicity to any danger to navigation, of which it has knowledge, within its territorial sea". There is no equivalent obligation on coastal States in UNCLOS to warn of dangers in archipelagic waters or internal waters.

Disposal of Offshore Installations and Structures by Dumping

1972 London Convention

The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, known as the 1972 London Convention, was adopted at an international conference in London in 1972. The 1972 London Convention entered into force on 30 August 1975, and has 87 States Parties as of 30 April 2012.

Under the 1972 London Convention, the definition of dumping includes the deliberate disposal at sea of platforms or other manmade structures. However, dumping does not include "the placement of matter for a purpose other than mere disposal thereof, provided such placement is not contrary to the aims of the Convention". Under these definitions, the disposal of platforms or installations would be dumping, but their placement on the seabed for the purposes of creating an artificial reef may not be dumping.

The 1972 London Convention applies to dumping at "sea", and sea is defined as all marine waters other than the internal waters of States. Therefore, the Convention applies to the disposal of platforms or other structures in the territorial sea or on the high seas as well as on the continental shelf.

Under the 1972 London Convention installations or platforms can be disposed of at sea if a general permit is issued.[22] The requirements for a general permit are set out in Annex III. The requirements for the granting of a permit include the completion of a full risk assessment including a thorough environmental impact assessment. The general considerations when issuing a permit for disposal at sea include the following:

> Possible effects on other uses of the sea (e.g. impairment of water quality for industrial use, underwater corrosion of structures, interference with ship operations from floating materials, interference with fishing or navigation through deposit of waste or solid objects on the sea floor and protection of areas of special importance for scientific or conservation purposes).
>
> The practical availability of alternative land-based methods of treatment, disposal or elimination, or of treatment to render the matter less harmful for dumping at sea.

1982 UNCLOS provisions on dumping

The 1972 London Convention was adopted just before the start of negotiations for the Third Conference on the Law of the Sea. Therefore, it is not surprising that the London Convention provisions on dumping were taken into account in UNCLOS.

The definition of dumping in article 2 of UNCLOS is almost the same as those in the 1972 Convention. Article 2 provides that dumping includes any deliberate disposal of platforms or other man-made structures at sea. It further provides that dumping does not include placement of matter for a purpose other than the mere disposal, provided that such placement is not contrary to the aims of the Convention.

UNCLOS imposes obligations on coastal States to protect and preserve the marine environment from the dumping of waste and other matter in the EEZ. Article 210 requires all States to adopt laws and regulations and other measures to prevent, reduce and control pollution of the marine environment from dumping. It further provides that such national laws and measures shall be "no less effective" than

[22] 1972 London Convention article 4(1)(c).

the global rules and standards. The global rules and standards are arguably the 1972 London Convention. Therefore, the 1972 London Convention in effect becomes the minimum standard which must be followed by States Parties to UNCLOS. States need not follow the exact scheme provided for in UNCLOS, but they must adopt laws and regulations, and these laws and regulations must be at least as effective as the 1972 London Convention in preventing, reducing and controlling pollution from dumping.

Article 216 of UNCLOS obligates coastal States to enforce their laws and regulations with regard to dumping in their territorial sea or their EEZ or on their continental shelf.

1996 Protocol to the 1972 London Convention

In 1996, the "London Protocol" was agreed to further modernize the Convention and, eventually, to replace it. The Protocol entered into force on 24 March 2006 and there are currently 41 States Parties. It is not clear how many States need to ratify the 1996 Protocol to the London Convention before it will be accepted as setting out the “global rules and standards” referred to in Article 210(6) of UNCLOS.

Under the Protocol all dumping is prohibited, except possibly acceptable wastes on the so-called "reverse list". The definition of dumping contained in the 1996 Protocol is the same as that contained in UNCLOS and in the 1972 London Convention, except that the London Protocol has expanded the definition of dumping to include “any abandonment or toppling at site of platforms or other man-made structures as sea, for the sole purpose of deliberate disposal”.

The 1996 Protocol contains the same exclusion as the 1972 London Convention. Article 1(4)(2) provides that dumping does not include placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of the Protocol. In addition, the Protocol adds a new exception to dumping by providing that dumping does not include “abandonment in the sea of matter (eg, cables, pipelines and marine research devices) placed for a purpose other than the mere disposal thereof”.

The geographic scope of the 1996 Protocol is slightly wider than the 1972 London Convention. The Protocol provides for dumping at sea, and “sea” is defined as all marine waters other than the internal waters of States, as was the case in the 1972 London Convention. However, the 1996 Protocol also provides that the sea includes the seabed and subsoil. In addition, the 1996 Protocol contains a separate

provision on internal waters. Article 7(1) provides that it applies to internal waters to the extent provided for in paragraphs 2 and 3 of that article. The article read as follows:

> 2. Each Contracting Party shall at its discretion either apply the provisions of this Protocol or adopt other effective permitting and regulatory measures to control the deliberate disposal of wastes or other matter in marine internal waters where such disposal would be "dumping" or "incineration at sea" within the meaning of Article 1, if conducted at sea.
>
> 3. Each Contracting Party should provide the Organization with information on legislation and institutional mechanisms regarding implementation, compliance and enforcement in marine internal waters. Contracting Parties should also use their best efforts to provide on a voluntary basis summary reports on the type and nature of the materials dumped in marine internal waters.

The 1996 Protocol regulates the deliberate disposal of platforms or other man-made structures at sea, as well as the abandonment or toppling of such installations or structures for the sole purpose of disposal. However, the placement of platforms or other man-made structures on the sea-bed for other purposes, such as creating an artificial reef, is not governed by the 1996 Protocol.

Annex I of the 1996 Protocol expressly provides that platforms and other man-made structures at sea may be considered to be dumping under the procedures set out in the Protocol. Platforms and structures may be considered dumping under article 4(1) and Annex I provided that:

> (1) a permit is issued following a process which meets the conditions set out in Annex II, which include a waste prevention audit, a review of waste management options, an analysis of the toxicity of the waste, EIA, monitoring measures, etc.; and
>
> (2) material capable of creating debris or otherwise contributing to pollution of the marine environment has been removed to the maximum extent and provided that the material dumped poses no serious obstacle to fishing or navigation.[23]

2000 London Convention Guidelines for the Assessment of Wastes or Other Matter that May be Considered for Dumping

At the 22nd Consultative Meeting of the Contracting Parties to the 1972 London Convention in 2000, the Consultative Meeting adopted eight wastes-specific Guidelines. It was intended that the Guidelines

[23] 1996 Protocol to the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, Annex 1, article 2.

be used by national authorities responsible for regulating dumping of wastes and embody a mechanism to guide national authorities in evaluating applications for dumping of wastes in a manner consistent with the provisions of the London Convention 1972 or the 1996 Protocol thereto. One of the eight wastes-specific Guidelines is for the assessment of platforms and other man-made structures at sea.[24]

The Guidelines were prepared by the Scientific Committee of the London Convention. At the time the Guidelines were adopted there were 78 contracting States to the London Convention, and 33 of these States attended the meeting of contracting States which adopted the Guidelines.

These Guidelines are not legally binding, even on parties to the 1972 London Convention or the 1996 Protocol, but they are intended to be used as Guidelines by national authorities in deciding whether to issue a permit for the disposal of platforms.

States Parties to UNCLOS are under an obligation, pursuant to article 210, to adopt laws and regulations and measures to prevent, reduce and control pollution from dumping, and such rules and standards must be no less effective than the global rules and standards. It is reasonable to conclude that the global rules and standards would be those contained in the 1972 London Convention. When deciding whether a State Party to UNCLOS has adopted laws and regulations and measures as effective as those in the 1972 London Convention, it would be reasonable to take into consideration the total effect of the rules and standards in the 1972 London Convention as well as in the 2000 London Convention Guidelines for the Assessment of Wastes or Other Matter that May be Considered for Dumping.

Pollution from the Decommissioning of Offshore Installations and Structures

1982 UNCLOS Article 194

Article 194 of UNCLOS places a general obligation on States to take all measures consistent with the Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source. These measures shall include those designed to minimize, to the fullest possible extent, pollution from installations and devices used in exploration or exploitation of the natural resources of

[24] Report of the Twenty-Second Consultative Meeting of the Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter 1972, 25 October 2000, LC 22/14, pages 18 and Annex 7. The text of the Guidelines is available on the IMO web site at <http://www.imo.org/blast/blastDataHelper.asp?data_id=17024&filename=5-Platforms.pdf>.

the seabed and subsoil.[25] The measures taken in accordance Part XII on the environment shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.[26]

1982 UNCLOS Articles 208 and 214

UNCLOS also gives coastal States rights and obligations to protect and preserve the marine environment from sea-bed activities under national jurisdiction, including offshore installations and structures subject to their jurisdiction. Article 208(1) requires that coastal States:

> adopt laws and regulations to prevent, reduce and control pollution of the marine environment arising from or in connection with seabed activities subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction, pursuant to articles 60 and 80.

Article 208(2) provides that States shall take "other measures as may be necessary to prevent, reduce and control such pollution". Article 208(3) provides that "such laws, regulations and measures shall be *no less effective* than *international rules, standards and recommended practices and procedures"* (emphasis added).

The obligation on coastal States under article 208 applies to seabed activities "subject to their jurisdiction" and from artificial islands, installations and structures under their jurisdiction. Therefore it is quite wide in scope. It would apply not only to seabed activities in the coastal State's internal waters, territorial sea and archipelagic waters, but also to seabed activities in their EEZ and on their continental shelf.

Offshore installations and structures usually have pipelines connected to them and such pipelines carry oil, gas and other noxious substances. It is not clear whether these pipelines would be considered part of the installation or structure and would have to be removed together with the installation or structure. Although UNCLOS is silent on the removal of pipelines, article 79(2) gives States the right to adopt laws and regulations for the prevention, reduction and control of pollution from pipelines. Also, it can be argued that the obligations of States under article 208 to adopt laws and regulations to prevent, reduce and control pollution of the marine environment from seabed activities under national jurisdiction would obligate States to adopt laws and regulations on pollution from pipelines.

[25] UNCLOS, article 194(3)(c).
[26] Ibid, article 194(5).

Using Offshore Installations and Structures for New Purposes

Introduction

The issue which will be addressed in this section is how the legal regime described above would apply to offshore oil and gas installations which are either converted to other uses or placed on the seabed for other purposes. For example, an offshore oil installation could be converted into a research facility or a hotel for scuba divers. Or an offshore installation could be dismantled (completely or partially) and placed on the seabed to construct an artificial reef or to create a breakwater.

There is a significant amount of literature on the use of installations and structures for the purpose of creating artificial reefs. The term "Rigs-to-Reefs" is often used to describe the practice of using obsolete offshore installations and structures to create artificial reefs for recreation, research or marine management purposes. The conversion involves either toppling in place, partial removal or relocating a structure from another area of the seabed in order to create a habit for fisheries and other marine life. Rigs-to-Reefs programmes in the United States have been used in relatively shallow waters to assist with habitat conservation and fisheries management. Recent literature suggests that rigs-to-reefs should also be considered for deep-sea locations.[27] In addition, some scientists are calling for the revision of OSPAR[28] Guidelines to permit rigs-to-reefs in the North Sea on a case-by-case basis. They argue that the most up-to-date science has concluded artificial reefs in deep-water may be beneficial to some species, and that the categorical exclusion of rigs-to-reefs is not scientifically justifiable.[29]

Obligation to remove installations and structures in the EEZ and on the continental shelf

There are no international laws or regulations governing the removal of installations or structures in internal waters, archipelagic waters or the territorial sea.

The UNCLOS provisions on the removal of abandoned or disused installations and structures in the EEZ and on the continental shelf would also apply to installations and structures intended for use other uses. The 1989 IMO Guidelines would also be applicable to installations and structure in the EEZ and on

[27] Peter I Macreadie, Ashley M Fowler and David J Booth, "Rigs-to-reefs: with the deep sea benefit from artificial habitat?" Front Ecol Enviro 2011; 9(8): 455-461, <http://dx.doi.org/10.1890/100112> (published online 24 March 2011).
[28] OSPAR is the mechanism by which fifteen Governments of the western coasts and catchments of Europe, together with the European Community, cooperate to protect the marine environment of the North-East Atlantic
[29] Dolly Jorgensen, "OSPAR's exclusion of rigs-to-reefs in the North Sea" Ocean & Coastal Management 58 (2012) 57-61.

the continental shelf. The same issues of residual liability for partially removed installations and structures in the EEZ and on the continental shelf would also apply.

There are three methods by which installations or structures could be used for the creation of artificial reefs. First, the top part could be removed and the bottom of the structure left in-situ, with sufficient clearance so that it does not pose a threat to navigation. Second, the structure could be toppled on site with sufficient clearance so that it does not pose a threat to navigation. Third, the structure could be cut up and parts of it moved to specific locations to attract marine life.

If rigs-to-reefs is a viable option and benefits the marine environment, then the provisions in the 1989 IMO Guidelines requiring the complete removal of all installations and structures in shallow waters in the EEZ and on the continental shelf may pose a problem. The issue which arises is whether States are strictly bound by the Standards in the 1989 IMO Guidelines, or whether they are simply required to take the Standards into account, and are free to decide not to completely remove all the structures if they are confident that the structures do not pose a threat to navigation or the marine environment and could enhance biological diversity. This is a difficult legal question, and the answer may depend on the extent to which the coastal State relies upon a thorough risk assessment and environmental impact assessment in reaching its decision.

If offshore installations and structures in the EEZ or on the continental shelf are converted to a new use such as a research facility or an artificial reef, the obligations to give notice and to remove them if they are abandoned or disused would continue to apply. The residual liability issues would also continue to apply.

Pollution from seabed activities and from installations and devices

The UNCLOS provisions on protection and preservation of the marine environment contained in articles 194, 208 and 214 would apply to the conversion of installations and structures to other uses (such as research facilities) or to the placement of installations and structures for other purposes (such as the construction of artificial reefs). The provisions would apply to the conversion process and would continue to apply to the converted installations or structures.

Dumping of installations and structures

The placement of installations for the purpose of constructing an artificial reef does not constitute dumping pursuant to the London Convention because the definition of dumping excludes "placement of matter for a purpose other than the mere disposal, provided that such placement is not contrary to the aims of the Convention". Given that the purpose of an artificial reef is to promote fisheries and marine biological diversity, such placement would not be contrary to the aims of the London Convention.

In fact, States which utilize the rigs-to-reefs option could argue that converting installations and structures to artificial reefs is consistent with their obligations under the 1992 Convention on Biological Diversity (if they are States Parties). Article 8(f) of the Biological Diversity Convention provides that States shall "rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, inter alia, through the development and implementation of plans or other management strategies".

Although the placement of platforms and other man-made structures at sea is not governed by the London Convention, some members at the consultative meeting of the parties in 2000 expressed the view that the London Convention meeting of Contracting Parties should develop guidelines to distinguish placement from dumping and to ensure that placement should not be used as an excuse for disposing of waste. The 22nd and 23rd Consultative Meetings (2000 and 2001) therefore developed the following elements of policy guidance concerning the placement of matter for a propose other than the mere disposal thereof:

1) placement should not be used as an excuse for disposal at sea of waste materials;
2) placement should not be contrary to the aims of the Convention;
3) information on placement activities by Contracting Parties should be provided to the Secretariat, as available; and
4) materials used for placement activities should be assessed in accordance with the relevant Specific Guidelines.[30]

The third requirement was quite controversial, given that placement activities are not considered dumping, and are therefore not governed by the 1972 London Convention or its 1996 Protocol.

[30] London Convention and Protocol /UNEP "Guidelines for the Placement of Artificial Reefs" 2009 para 2.1.1

Therefore, it is not surprising that this requirement was subsequently qualified to provide that voluntary reporting by Contracting Parties on "placement" should focus on instances where waste materials were used.[31]

2009 London Convention and Protocol/UNEP Guidelines for the Placement of Artificial Reefs

The concern of some member States of the London Convention on the placement of artificial reefs was shared by some member States of United Nations Environment Programme (UNEP). In 2006, the governing bodies endorsed a work plan prepared by the Scientific Groups to develop such guidance under the lead of Spain as Chair of the Scientific Groups' Correspondence Group on Artificial Reefs (CGAR). The Guidelines were prepared by consultants with financial and in-kind assistance from the UNEP, the Technical Cooperation and Assistance Programme of the London Convention, and the Governments of Spain and the United States.[32]

The final draft of the Guidelines was approved by the meetings of the thirtieth consultative meeting of Contracting Parties to 1972 London Convention and the third meeting of Contracting Parties to the 1996 Protocol in October 2008.[33] The Guidelines were published in 2009 as the London Convention and Protocol / UNEP Guidelines for the Placement of Artificial Reefs.[34]

The purpose of the Guidelines is to assist those countries that have recognised the need to assess proposals for the placement of artificial reefs on the basis of scientifically sound criteria, as well as to develop an appropriate regulatory framework; to assist with the implementation of regulations in those countries where such regulations are already in place, but where there is nevertheless a need for such guidance; and to assist in updating existing guidelines or regulations.[35] The Guidelines also state that one of their broader objectives is to ensure that the placement of artificial reefs is not used as a mechanism to circumvent the provisions of the London Convention on the "dumping" of wastes. The Guidelines further state in paragraph 2.1.1 that:

---

[31] Report of London Convention, 26/15, paras 6, 12

[32] Guidelines, supra note 30, Acknowledgements, p. iv

[33] Report of the thirtieth consultative meeting and the third meeting of contracting parties, LC 30/16, 9 December 2008, para. 8.6.

[34] The Guidelines are available online at <http://www.imo.org/blast/blastDataHelper.asp?data_id=25688&filename=London_convention_UNEP_Low-res-ArtificialReefs.pdf>.

[35] Report of LC 30/16, *supra* note 33, paras 8.1 – 8.2.

> Contracting Parties to the London Convention and/or the London Protocol that are considering proposals to deploy an artificial reef constructed using waste material, or consisting of previously used structures or materials, should assess the proposal taking into account the above policy guidance and impose appropriate conditions.

At the meeting in 2008 when the Guidelines were adopted, the delegation of Japan reiterated its view that placement activities did not fall within the mandate of the London Convention and the Protocol. It also reiterated its view that the Guidelines were not legally binding, as agreed in 2007 by the governing bodies. However, the delegation of Japan stated that it strongly supported the purpose of the Guidelines. It stressed that the placement of artificial reefs should not provide an excuse for dumping waste or other materials that would be contrary to the aims of the London Convention and Protocol. It also stated that the Guidelines could be beneficial as a reference point, particularly for developing countries that did not have any form of regulation.[36] The Guidelines themselves specifically provide that "Although these Guidelines have been developed within the context of the London Convention and Protocol, they are not legally binding on any country".

Given the history of these Guidelines, it is not possible to consider them to be the international rules, standards and recommended practices and procedures referred to in article 208 of UNCLOS. Also, paragraph 5 of article 208 makes it clear that "States, acting through competent international organizations or diplomatic conference" shall establish global and regional rules, standards and recommended practices and procedures. It would be difficult to argue that a meeting the Contracting States to the 1972 London Convention and its 1996 Protocol fulfills this requirement, particularly given doubts as to whether the issue of the placement of installations and structures is even within the mandate of the London Convention and Protocol.

Conclusions

The global regime governing the decommissioning of offshore platforms is complex and confusing. However, several conclusions can be drawn from the above analysis.

First, the provisions in UNCLOS set the standard for all States, even non-parties. UNCLOS has been universally accepted, and its provisions can be regarded in many respects as a reflection of obligations under customary international law. This would include the rights and obligations of States with respect to installations and structures in their EEZ and on their continental shelf as set out in articles 60 and 80.

[36] Ibid, para 8.9.

In addition, States have obligations under articles 194, 208, 210, 214 and 216 to prevent pollution of the marine environment in all maritime zones under their jurisdiction.

Second, as provided in article 60(3) and article 80 of UNCLOS, any installations or structures in the EEZ or on the continental shelf which are abandoned or disused must be removed to ensure safety of navigation, taking into account any generally accepted international rules and standards, including the 1989 IMO Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone.

Third, the abandonment or disposal of installations or structures in any maritime zone except internal waters would be classified as "dumping", and constitutes a breach of the obligations set out in article 210 of UNCLOS. Even if a State Party to UNCLOS is not a party to either the 1972 London Convention or its 1996 Protocol it is required, under article 210, to adopt laws and regulations and take measures that are no less effective in preventing, reducing and controlling pollution from dumping as "the global rules and standards". The global rules and standards would be the 1972 London Convention and the Guidelines and Standards adopted by the Contracting Parties to the London Convention, including the 2000 London Convention Guidelines for the Assessment of Wastes or Other Matter.

Fourth, the placement of installations and structures on the seabed for purposes other than disposal, such as for conversion to an artificial reef, are not classified as dumping under the 1982 Convention or under the 1972 London Convention or its 1996 Protocol. The placement of such platforms in the EEZ or on the continental shelf must be undertaken in conformity with the 1989 IMO Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone. There are no legally binding rules on the placement of installations and structures on the seabed in the territorial sea and in archipelagic waters. However, the 2009 London Convention and Protocol/UNEP Guidelines for the Placement of Artificial Reefs set out non-binding Guidelines to assist States that have recognized the need to assess proposals for the placement of artificial reefs on the basis of scientifically sound criteria.

Fifth, States have an obligation under article 208 of UNCLOS to adopt laws and regulations and take other measures to prevent, reduce and control pollution of the marine environment arising from or in connection with seabed activities subject to their jurisdiction. Such laws and regulations and measures shall be no less effective than the "global and regional rules, standards and recommended practices and

procedures" established by States through competent international organizations or diplomatic conferences. Unfortunately, the international community has yet to establish any global rules, standards and recommended practices and procedures. Some regions have established such rules, standards and recommended practices and procedures, but others have not.

Sixth, the existing global legal regime allows States to place installations and structures on the seabed for the purpose of constructing artificial reefs. The placement of installations and structures on the seabed for the purpose of creating artificial reefs is not dumping under 1982 UNCLOS, the 1972 London Convention or the 1996 London Protocol. There are no global rules governing the use of installations and platforms in the territorial sea or archipelagic waters for the purpose of constructing artificial reefs. The removal of installations and structures in the EEZ and on the continental shelf is governed by articles 60 and 80 of UNCLOS, taking into account the generally accepted international rules and standards set out in the 1989 IMO Guidelines. However, the phrase "taking into account" suggests that States have some discretion in deciding whether or not to strictly comply with the Guidelines. Although the 2009 London Convention / UNEP Guidelines are not legally binding, States which decide to use installations or platforms to construct artificial reefs would be well advised to use the Guidelines to develop a regulatory framework which ensures that the construction of artificial reefs is done on the basis of scientifically sound criteria which protects the marine environment.

Finally, the biggest gap in the current global regime is the absence of global rules, standards and recommended practices and procedures for the prevention, reduction and control of pollution from seabed activities under national jurisdiction as referred to in article 208 of UNCLOS. The international community should make the development of such rules a high priority. If the IMO is not considered to be the competent international organization for this purpose, then interested States should draft a global convention and convene a global diplomatic conference to consider its adoption.