The seas of Southeast Asia across Brunei, Indonesia, Malaysia and Thailand host close to 1400 offshore installations with more than 700 being in excess of 20 years old and due to be retired. Despite this, the impending decommissioning wave is off to a slow start.

Many of the installations concerned have been returned to the responsibility and control of the coastal States following the cessation of the oil operator’s contract and have since been awaiting treatment. Unlike today’s practice, the post-production treatment of these older installations does not benefit from the provisioning of an escrow account (based on proceeds from production accumulated over time) allocated to future decommissioning and clean-up operations.

The issue of the most suitable treatment for disused offshore installations triggers conflicting debates. While international law does present some clear rules, legal gaps and confusing language are often misrepresented to serve competing agendas. The following analysis seeks to clarify the legal arguments behind these issues.
Haunted by the specter of Brent Spar:
Full removal is not the only acceptable decommissioning option

There is a general perception that the most acceptable treatment for disused offshore installations is full removal from the seabed and scrapping ashore. This view seems to be largely inherited from the European interpretation of the relevant provisions of the United Nations Convention on the Law of the Sea (the Law of the Sea), the Guidelines and Standards for the Removal of Offshore Installations adopted in 1989 by the International Maritime Organization (the IMO Guidelines) and the 1995 Brent Spar incident.

Brent Spar is often seen as a curse on the offshore industry. It involved the occupation of the platform Brent Spar by Greenpeace and a long public campaign designed to exert pressure on the oil operator, Shell in this case, to convince it to fully remove the structure rather than proceed with the planned deep-water disposal. The public outcry was further fueled by miscalculations by Greenpeace as to the amount of oil that would be remaining in the tanks. Shell eventually gave in to pressure, removed the platform and brought it to shore. The legacy of this incident shaped the current ‘full removal’ paradigm rather than allowing for a more holistic assessment and cost-benefit analysis of available options.

One possible alternative can be the reuse of a decommissioned platform as an artificial reef. However, the OSPAR Commission adopted Guidelines in 1999, which require that artificial reefs be made of virgin materials only, thereby preventing the reuse of platforms as artificial reefs (OSPAR is the inter-governmental organization charged with the protection of the marine environment in the Northeast Atlantic). OSPAR also adopted binding rules for the prevention and elimination of pollution from offshore sources and by dumping and requires full removal as a starting point.

In Southeast Asia the situation is different. There is no equivalent of OSPAR and no regional rules have been adopted by the coastal States to implement international rules in the region. Applicable rules of international law provide a more open legal environment. The Law of the Sea, which has been ratified by all the main offshore oil and gas producing countries of Southeast Asia, provides that abandoned and disused structures in the exclusive economic zone must be removed to ensure safety of navigation, taking into account any generally accepted international standard established by the IMO for that purpose. The text also refers to the need to give due regard to fishing, the environment and the rights of duties of other States. In addition, where an installation is entirely removed, there is an obligation to give appropriate publicity of its location to ensure safety of navigation.

The IMO Guidelines are the ‘generally accepted international standards’ referred to in the Law of the Sea. They provide recommendations for States in determining the fate of disused offshore installations in the exclusive economic zone by essentially taking a case-by-case and holistic approach. The Guidelines invite States to evaluate and balance impacts from the disposal at sea of the installation based on a number of factors including navigation, the marine environment, stability and integrity of the structure, cost, technical feasibility, etc.

Where, as is the case in Southeast Asia for most of the offshore platforms currently due to be retired, platforms weigh less than 4,000 tons in air and are located in less than 75 meters of water, the recommendations are more stringent. It is recommended that platforms should only be left in situ where the entire removal is not technically feasible, would involve extreme costs, or may result in an unacceptable risk to personnel or the marine environment.

However, there is no provision in the Law of the Sea providing for the removal of installations in the territorial sea or archipelagic waters. The IMO Guidelines also specifically allow for offshore installations to be left in situ if they are to serve a new use and do not cause unjustifiable interference with other uses of the sea. However, they should be removed if they are located on officially designated and/or customary traffic lanes.
Pure abandonment requires a permit, environmental impact assessment and due diligence

The 1989 IMO Guidelines are further strengthened by the provisions of the Law of the Sea and of the 1972 London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (the London Convention on Dumping). Indeed, the abandonment of an installation at sea without any plan for re-use amounts to a disposal at sea or dumping. This is true for any subsea structure, not just for the jacket of a platform. This rule applies irrespective of the location in the territorial sea or exclusive economic zone and arguably in archipelagic waters.

To comply with the Law of the Sea, such disposal requires that permission be granted by the competent authority of the coastal State (with jurisdiction over the platform). It further specifies that national laws, regulations and measures shall be no less effective in preventing, reducing and controlling such pollution than the global rules and standards.

Offshore oil and gas producing States in Southeast Asia that have ratified the Law of the Sea thus have an obligation to enact such regulations and measures. Although most of them have not ratified the 1972 London Convention on Dumping, the rules of this convention must be taken into account by these States to ensure that their respective national rules are ‘at least as effective’. This derives from the wide global ratification of the London Convention on Dumping and the fact that it pre-dates the negotiations of the Law of the Sea. All concur to consider that the London Convention on dumping amounts to a ‘global rule and standard’.

Based on this, all coastal States have a minimum obligation of scrutiny or due diligence (even non-signatories to the London Convention). They should not grant a permit for any structure to be disposed at sea without a case-by-case assessment of the environmental risk, of the dumping site characteristics, of land-based methods of treatments and of the impact on other uses of the sea.

In circumstances where a jacket would be transported by a vessel to be disposed off at a different location, the flag State is under the same obligation of scrutiny as the coastal State. By extension the flag State is expected to have adopted adequate domestic measures to ensure that vessels flying its flag comply with minimum international standards with respect to waste disposal at sea.

For foreign oil operators to take advantage of coastal States’ and flag States’ laws which may be less stringent than international law requires is bad practice. It is also certainly one which may reveal very damaging for the operator’s reputation should any practice below international standards be reported.

By contrast, oil operators can enhance their reputation by creating new uses for offshore installations formerly used for oil and gas production. In such a situation, none of the rules mentioned above apply, provided that the ‘new use’ is not a disguised disposal at sea. Many new re-use purposes can be envisaged depending on the location and opportunities.

New and legitimate reuses include aquaculture, marine tourism or fisheries management. Where a former offshore installation is reused as an artificial reef to fulfill the functions of a natural reef for fisheries or biodiversity enhancement, the process is called rigs-to-reefs.
Re-use options include rigs-to-reef, a transformation of a rig into an artificial reef

Interestingly, the rigs-to-reef process has triggered very bad press from environmentalists. Greenpeace and other non-governmental environmental organizations consider that as a starting point all man-made structures used for commercial activities must be removed once the commercial activity ceases as leaving them is disguised dumping. They resist the idea that any marine ecosystem could benefit from such programmes from an ecological perspective and seldom take socio-economic parameters into accounts. This view has influenced Europe’s general approach to this topic. However, the United States embraced rigs-to-reefs in the Gulf of Mexico several decades ago and more recently in California.

The debate around the merits of rigs-to-reefs has long been framed around the aggregation versus production debate. Aggregation refers to the attraction of fish to an artificial reef. Production refers to the creation of new life on this artificial reef. The idea is that such ‘attraction’ results in an increased fish density which allows for better fisheries management through easier catch but also protection. However, these fish may be displaced from another area. The production argument relies on the idea that fish and other marine life found on artificial reefs would not exist but for the existence of the new reef.

Current research shows that both theories are valid, depending on the location of the artificial reef and the marine life considered. An artificial reef will likely offer shelter and grazing opportunities to visiting fish and other marine life such as marine turtles, but may also offer suitable substrate and habitat for other species, depending on the location and surrounding marine systems.

Environmentalist resistance is not reflected in international marine law. Where an artificial reef is aimed at fisheries management, the jurisdiction and right of the coastal State to place such installation in the territorial sea or in the exclusive economic zone is very clear. Where an artificial reef has a broader aim of protecting sensitive or endangered marine habitats or marine biodiversity without a direct link to fisheries, coastal States are still performing their duty of protecting the marine environment as provided in the Law of the Sea. This obligation of protection is also contained in other international conventions widely ratified in Southeast Asia such as the Convention on Biological Diversity or the Ramsar Convention on the Protection of Wetlands of International Importance.

To be authorized under international law, rigs to reefs must not amount to mere disguised dumping but rather serve a true purpose. This must also be justified by sound science. A typical method would involve the drafting of a placement plan identifying the objectives and presenting the scientific basis for such objectives. Monitoring would also be required to assess whether the objectives are reached. If they are not, a new plan would need to be crafted in order to show that the artificial reef continues to serve a useful purpose. Failure to do so could result in the requalification of artificial reef as waste at sea requiring a license.

In addition, the placement of an artificial reef must be done with due regard to the rights of other States and other users of the sea, the extent of which vary depending on the maritime zone in which the placement would occur: territorial sea (within 12 nautical miles of the baseline), archipelagic waters, exclusive economic zone (beyond 12 nautical miles up to 200 nautical miles), extended continental shelf (when the coastal State is entitled to claim an outer limit beyond 200 nautical miles), international straits, etc. Beyond 12 nautical miles, coastal States must pay particular attention to shipping safety due to the freedom of navigation.
Other aspects of decommissioning operations also need to be considered: well-plugging, pipelines, drill cuttings and more.

Successive proposals made over the years for one set of global rules for offshore oil and gas activities have failed. In order to remedy the situation, several IMO conventions, standards and guidelines include within their scope activities from offshore activities and regulations for them. The result has been a patchwork of rules and gaps.

The most blatant gap concerns well-plugging and abandonment which continue to be left to industry practice and domestic laws. However, in the context of transboundary pollution resulting from defects in the well-plugging or abandonment, there is no doubt that the State with jurisdiction over the wells is responsible. The Law of the Sea even provides that States must ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction.

Another unfortunate gap exists with respect to the decommissioning of pipelines. While jurisdiction over pipelines is covered in the Law of the Sea, their abandonment is not. Further, the abandonment of pipelines is expressly excluded from the 1996 Protocol to the London Convention, thus leaving the matter solely in the purview of coastal States.

By contrast, drill cuttings and other solid waste from offshore oil and gas activities fall within the scope of the IMO Convention on Maritime Pollution from shipping activities (MARPOL). However, these rules only apply at the time this waste is produced rather than at the stage of decommissioning. International law does not provide for an obligation to reinstate the site in its prior state. Nevertheless, should transboundary pollution result from former offshore activities, the responsibility of the coastal States who had jurisdiction over them would be difficult to challenge.

Regional developments

The Decommissioning Guidelines for Offshore Oil and Gas Facilities which are currently being developed by the ASEAN Council on Petroleum (ASCOPE) are yet to be released and are formulated as a non-binding guidance. The general approach seems to be to centralize most of the relevant international instruments, domestic regulations and current practices in order to ease the task national authorities face with respect to decommissioning operations in the ASEAN.

In summary, there are no agreed rules of decommissioning in the ASEAN nor any established practice. The legal framework, which is set out in international instruments, provide for a case-by-case approach which leave a large responsibility to coastal States in the balancing of interests. There is no one-size-fits all solution. Full removal is a preferred option to pure disposal at sea. However, full removal is not a preference to re-use, provided that re-uses are for a legitimate purpose.

Given the connected nature of the seas of Southeast Asia and the proximity of many offshore oil and gas activities to marine resources belonging to an adjacent State, further work by ASCOPE or another forum designed to ensure coordination and consistency between domestic regulations relating to offshore oil and gas activities would be welcome. States in Southeast Asia also need to ensure that their regulations relating to abandonment at sea satisfy the minimum international due diligence standard.

Direct all questions to younalyons@nus.edu.sg
+(65) 9005 2437