



# **Global Maritime Weekly Digest**

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**22 May 2018**

**issue 121**

*The **Global Maritime Weekly Digest**, based at **SOLENT University**, provides a regular flow of maritime news and analysis, of significance in a global context.*

*Topics covered include shipping fleets and management, seaborne trade, ports, shipbuilding, ship recycling, maritime policy and regulations, and seafarers' labour.*

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## **Editorial comments**

- Pressure on shipowners to arrange **clean and safe recycling of ships** has increased recently. Some investment funds involved with the shipping industry are attempting to exert extra influence to encourage higher standards of environmental responsibility and worker safety (item 1). One fund has argued that this policy is proving effective.
- Among shipping casualties, **bulk carrier losses and incidents** are still a tragic feature of ocean cargo transportation (item 2). But analysis shows a downwards trend in numbers of ship losses and seafarers' lives lost in past years. One of the greatest concerns continues to be problems with bulk commodity cargoes, often related to the consequences of excessive moisture content.
- An aspect of large **changes taking place in the global tanker market** is the emergence of the USA as a major exporter of oil. This development has led to a new focus on port facilities in the US Gulf area (item 7), most of which were not designed for exporting crude oil and consequently cannot load the largest, most economical tankers (vlccs - very large crude carriers).
- The **significance for ship recycling of European Union regulations** covering exported waste material was highlighted recently when a European shipowner was prosecuted (item 5). This case emphasised the EU's intention to influence assessment of shipbreaking standards when decisions are taken about where to sell ships for recycling.

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(1) Hellenic Shipping News, 16 May 2018/ Reuters

## Shipping's financiers turning the tide on shipbreaking practices

The shipping industry has long been criticised by campaigners for allowing vessels to be broken up on beaches, endangering workers and polluting the sea and sand.

Now, it is being called to account from a quarter that may have a bit more clout – its financial backers.

Norway's \$1 trillion Oil Fund, a leader in ethical investing, in February sold its stake in four firms because they scrap on the beach.

Three of the firms excluded by Norway's fund – Taiwan's Evergreen Marine, Precious Shipping (PSL.BK) and Thoresen Thai Agencies (TTA) (TTA.BK) of Thailand – say they have been unfairly singled out. The fourth, Korea Line (005880.KS), declined to comment.

Norwegian life insurer KLP soon followed, selling shares in the one of the four it owned and blacklisting the other three.

Further exclusions are likely, said KLP, the fund and its advisory Council on Ethics. The council's chief adviser, Aslak Skancke, said the divestments had already effected wider change, including encouraging companies to seek cleaner scrapping.

The fund contacted several firms in its portfolio during its investigation, Skancke said, "and when we made them aware of the possibility of exclusion from the fund, they ... decided to change their policy." He declined to name the companies.

Three leading pensions funds – Caisse de Depot, CCP and OMERS – are reviewing their investments in shipping over ethical and green considerations, a finance source familiar with the matter said. OMERS declined to comment. Caisse de Depot and CCP did not respond to requests for comment.

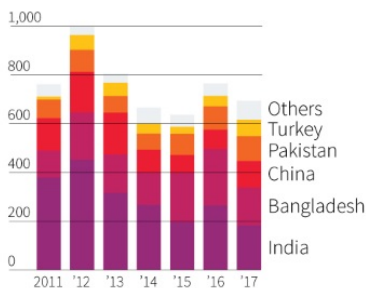
The steps add to momentum on the issue from European Union regulators and courts, in particular pressure to measure up to standards for inclusion on the EU's list of approved ship-breaking yards, which is due to be updated later this year.

### Ship scrapping under scrutiny

Investors are reviewing how the shipping industry scraps vessels on beaches after campaigners say such practices endanger workers and cause pollution.

#### NUMBER OF DEMOLITIONS

By country



Source: VesselsValue.

C. Hughes, 14/05/2018

#### TOP FIVE DEMOLITION COUNTRIES

Locations of their largest single sites



REUTERS

It's a revolution that has been a long time coming, environmental, labour and human rights activists say. But a transition won't be easy, for owners or breakers.

More than 80 percent of ageing commercial ships are broken up on the beaches of Bangladesh, Pakistan and India. Industry leaders in South Asia say they cannot afford to upgrade their sites and remain competitive.

And not all beaching is the same. In its most criticised forms, workers cut up ships with little more than their hands and blowtorches, with parts and pollutants dropping directly onto the sand. Other sites have cranes, impermeable surfaces and safety standards for workers and equipment.

“No one has ever really been able to come up with a reasonable definition” of beaching, said John Stawpert, manager for environment and trade at the International Chamber of Shipping, which represents most of the world’s merchant fleet.

“If there was to be a blanket ban on ‘beaching’ there would be a very, very serious capacity problem because there is nowhere else big enough to deal with it at the moment,” he said.

Beaching in South Asia also pays more, an important consideration as the shipping industry emerges from a decade in the doldrums due to over-ordering of ships and slowing global trade, 90 percent of which is transported by sea.

Financial sources estimate shipping companies face a \$30 billion funding gap in 2018, because even though the business is recovering, they are still not getting enough money from banks who are constrained by stricter capital requirements.

Commerzbank has said it will exit shipping financing and invest its capital elsewhere; others, such as Deutsche Bank, say they aim to cut their exposure to the sector.

### **Financing**

Leading Dutch shipping finance houses ABN AMRO (ABNd.AS) and ING, Sweden’s Nordea (NDA.ST), Norway’s DNB (DNB.OL) and Denmark’s Danske Bank (DANSKE.CO), as well as the Netherlands’ NIBC, say they are taking a hard look at their borrowers’ policies.

“We believe actors that do not take the environmental and social risk seriously will have problems accessing capital markets in the future,” said Kristin Holth, DNB’s leader for Ocean Industries.

Most of the 18 institutional investors contacted by Reuters said they preferred engagement to divestment, at least at first.

Sasja Beslik, head of group sustainable finance at Nordea, said the bank had “no issue with divestments – we’ve done that over the years and are not afraid of doing that.”

But he added that in the case of ship breaking, the approach for now was to encourage companies to “take responsibility”.

A spokesman for ABN AMRO said in a statement if clients did not comply with the bank’s sustainability policies, there would be “a phase of engagement”.

“If engagement is without result, the ultimate consequence is that the relationship with (the) client will be ended,” he added.

Europe has a powerful voice as the world’s second-largest ship-owning region after China, with an estimated \$301 billion worth of tonnage, according to valuation company VesselsValue.

The EU’s decision to draw up a list of approved ship-breaking yards in December 2016 was the first regulatory step with real teeth; the Hong Kong Convention on recycling drawn up in 2009 does not take a position on beaching and has only a handful of signatories so far.

Courts in Europe are playing a role, too. In March, Dutch company Seatrade and two of its directors were found guilty of violating rules banning the transport of waste from the EU to India when it sailed ships there to have them demolished, one of the first criminal cases of its kind.

The case “sets an important precedent”, said Ingvild Jenssen, founder and coordinator of NGO Shipbreaking Platform, a coalition of environmental, human and labour rights organisations formed in 2005 which has mapped out direct links between shipowners and beaching operations.

Skancke said Shipbreaking Platform’s work played an important role in its decision to divest.

### **Beaching**

In beaching, ships are run to ground in inter-tidal areas that would normally teem with sea life.

Oil, sludge, paint chips and slag can get washed out to sea with the tide, environmental and rights campaigners say. Other toxic materials, like asbestos, get absorbed into the sand.

The yards – centred in Pakistan (mainly Gadani), India (Alang) and Bangladesh (Chittagong) – employ tens of thousands of people, of whom dozens are killed each year, the campaigners say. An oil tanker blast in 2016 in Gadani killed at least 26 workers and injured dozens.

Government officials and shipowners say conditions have improved significantly in recent years.

Please note: this publication is intended for academic use only, not for commercial purposes

“From the day of the (Gadani) accident until this day improvements have been brought at the yards, like working conditions,” Hashim Gilzai, the government commissioner with administrative control over the yard, told Reuters.

Bangladesh passed regulations in January to upgrade facilities and impose tougher penalties, said Shamsul Areefin, additional secretary with the ministry of industries.

The challenge was how to put expensive infrastructure in place while remaining cost competitive, said Nitin Kanakiya, secretary of India’s Ship Recycling Industries Association.

“We cannot afford these huge capital investments,” he said. “And if we invest this much, our economic significance will go away.”

### **Fund’s methods disputed**

Taiwan’s Evergreen, one of the four firms excluded by the Norwegian fund, said it “specifically demanded” that vessels be broken up at certified green recycling shipyards. TTA said it was compliant with all international rules and regulations.

Khalid Hashim, managing director of Precious Shipping, one of Thailand’s largest dry cargo ship owners, disputed the way the fund was going about its goal because it would be easy to sell ageing ships to third parties before their end of life.

“In that case we would be whiter than the snow that falls in Norway but the buyers of our ships would, a few years later, scrap the ships at the beaches of the Indian sub-continent.”

Skanska said the fund’s actions were just the beginning of a process, starting with Pakistan and Bangladesh.

“Now the question remains, can you still do this in a responsible manner?” he said. “And that is a question that will have implications for how we view companies which send ships for beaching in India.”

The ICS’s Stawpert said continuing improvements in South Asia operations would allow the region to remain at the centre of global ship-breaking.

But Shipbreaking Platform’s Jenssen said that was not possible as long as beaching continued.

“Our role is to promote clean and safe solutions and to make sure that there is no double standard in the way the environment and workers are protected around the world,” she said.

“It is key to make sure that the surrounding environment is not contaminated. This is impossible on a tidal beach, as is cleaning up an oil spill.”

Source: Reuters (Jonathan Saul, Simon Jessop; Additional reporting by Joyce Lee in Seoul, Stine Jacobsen in Copenhagen, Joachim Dagenborg and Gwladys Fouche in Oslo, Syed Raza Hassan and Drazen Jorgic in Islamabad, Ruma Paul in Dhaka and Sudarshan Varadhan in New Delhi; Editing by Sonya Hepinstall)

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(2) Intercargo, 10 May 2018

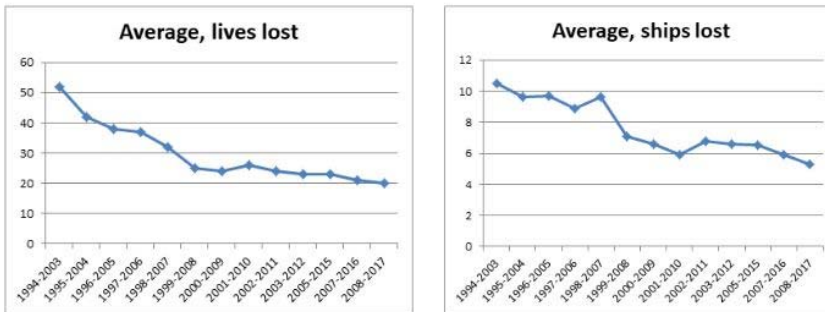
## **“On Bulk Carrier Casualties & Incidents”**

INTERCARGO’s latest Bulk Carrier Casualty Report, which provides an analysis of bulk carrier total losses between 2008 to 2017 (see<https://www.intercargo.org/bulk-carrier-casualty-report-2017/>), has been submitted to the International Maritime Organization (IMO) for the consideration of the Member States, Non-Governmental Organisations and other interested parties. Between 2008 and 2017 there have been fifty three total losses of bulk carriers of 10,000 tonne deadweight and above with the reported loss of 202 seafarers.

Analysis of INTERCARGO’s casualty records from 1994 to the present day indicates a gradual improvement over the years in terms of numbers of lives and ships lost. The below two graphs display the average number of lives and ships lost over rolling ten-year periods and clear downward trends are observed.

The bulk carrier industry recognises the many contributing factors to this safety improvement, which include the introduction of adequate safety requirements by the IMO flag States, the role of IACS, PSC regimes and the best practices and large investments by the bulk carrier industry. There is no room for

complacency and further work needs to be done in order to continue the trends with the ultimate goal of no lives or ships lost.



In March 2017, the sinking of M/V Stellar Daisy, carrying iron ore, resulted in the tragic loss of 22 seafarers. While the Search And Rescue (SAR) efforts in response to this sinking are to be praised, in its aftermath the shipping community should be concerned about the non-availability of sufficient SAR capabilities in the vicinity of busy shipping lanes around the world and revisit this issue. In October 2017 the sinking of M/V Emerald Star, loaded with nickel ore, claimed the lives of 10 seafarers. The industry expects that the full investigation reports will provide answers and highlight the lessons to be learnt from these losses.

The Bulk Carrier Casualty Report 2017 again highlights that cargo failure, including moisture related cargo failure mechanisms, is one of the greatest concerns for the safe carriage of dry bulk over the past 10 years and is likely the cause of the loss of 101 seafarers' lives and 9 vessel losses. The incident onboard the 57,000 dwt MV Cheshire in August 2017 involving high temperatures in the cargo holds and the release of gases from the cargo again raised serious concerns with the carriage of ammonium nitrate based fertiliser. The shipping industry welcomed the issuance of the IMO circular CCC.1/Circ.4 on "Carriage of Ammonium Nitrate Based Fertilizer (non-hazardous)" on 22 Sept 2017; however bulk carrier owners and masters are expecting prompt and clear mandatory safety requirements to avoid recurrence of the M/V Cheshire and M/V Purple Beach incidents.

An analysis of bulk carrier incidents in 2016 and 2017 as shown in the next table gives the most common ones in both years: 1) machinery and technical, 2) Main Engine, 3) Grounding, 4) Collision, 5) Allision. The preliminary findings as per this table direct the attention of all stakeholders to ship safety issues related to the human element and leading to grounding and collision, as well as to equipment failures. INTERCARGO and its members appreciate the support and contribution from all stakeholders and will strengthen their communication with them on crew training, equipment design and manufacturing, and shipbuilding and explore joint projects to introduce and implement appropriate measures. Following the example of IACS and its Common Structure Rules, the bulk carrier industry would wholeheartedly welcome initiatives and safety measures from other industries.

Source: Intercargo  
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(3) Hellenic Shipping News, 12 May 2018/ Gard

## The Maritime Labour Convention – theory and practice

### Introduction

The Maritime Labour Convention, 2006 (MLC) entered into force on 20 August 2013. The convention establishes minimum working and living standards for all seafarers working on ships and aims to ensure seafarers' rights to decent employment conditions at sea. The MLC has been ratified by 82 International Labour Organization (ILO) member states – together "responsible for regulating conditions for seafarers on more than 90% of the world's gross tonnage of ships".

In April 2014, the ILO agreed several amendments to the MLC (the 2014 amendments) which entered into force on 18 January 2017.

Pursuant to the 2014 amendments, all ships subject to MLC are required to display two certificates issued by an insurer or other financial security provider confirming that insurance or other financial security is in place for:

1. repatriation of crew, essential needs of the seafarer and up to four months' outstanding wages and entitlements in the event of abandonment, and
  2. shipowners' liabilities for compensation in the event of death or long-term disability due to occupational injury, illness or hazard as set out in national law, employment agreement or collective agreement
- Shipowners' liabilities for compensation in the event of death or long-term disability is covered under Gard's Rule 27. The abandonment risks, however, are not covered under Gard's Rules. Pursuant to the MLC Extension Clause 2016 (incorporated into Gard's Rules via Rule 27.4) the Member is obliged to reimburse the Club for any costs paid under the certificates which are not covered. A similar provision is found in the Rules of all the Clubs in the International Group of P&I Clubs (IG).

As the Boards of all the IG Clubs decided that the Clubs should provide the necessary certification, Gard has provided its Members with the required certificates for more than one year.

#### **Handling an abandonment case**

According to the MLC, the crew is considered as abandoned if the shipowner

1. fails to cover the cost of the seafarer's repatriation, or
2. has left the seafarer without the necessary maintenance and support, or
3. has otherwise unilaterally severed its ties with the seafarer including failure to pay contractual wages for a period of at least two months.

It may be that a shipowner in financial difficulty will abandon crew and it is also likely that such a shipowner will neither alert the crew nor their club. That was the situation when a club correspondent relayed to Gard the Master's message that over 30 crew members were running out of water, food and fuel and had not been paid for several months. At the time, the Gard Member was already in liquidation and no longer controlled the company's funds.

Gard established contact with both the Member and the official liquidator with the aim of getting them to honor their obligations towards the crew. As the owner was already in liquidation and there were several other creditors involved, the process of releasing funds for the necessary supplies proved to be more difficult than anticipated. To avoid a blackout on the ship, Gard stepped in and arranged for the necessary supplies to be brought to the crew. Subsequently, Gard managed to convince the Company Court and liquidators to provide necessities for the safety and well-being of the crew.

One of the challenges often faced by the clubs and the crew is getting the crew off the ship. Pursuant to the MLC, the financial security provider undertakes to pay for repatriation expenses, but is not obliged to maintain the safe manning of the vessel. This obligation remains with the manager, or owners, of the vessel. Even though Gard in this case was willing and able to repatriate the crew, the court and the port authorities did not allow the crew to leave as there were no one to replace them and the ship could not be left unmanned.

As the ship had more crew than the safe-manning requirements stipulated, Gard suggested that the crew exceeding the said requirements should be signed-off. Almost 1.5 months after Gard received the first notification, 18 crew members were finally signed off. The crew was met by Gard's local correspondent and provided with food and housing until our correspondent had gone through and confirmed the validity of the crew's claims for outstanding wages.

There were still crew members onboard and they were becoming increasingly frustrated. However, they could not abandon the vessel as they could in such case be held personally responsible for the consequences.

Almost two weeks later the remaining crew members were finally able to sign off. The vessel had been in blackout for almost 24 hours and the Master feared for the safety of the crew. At the last minute, the owners instructed the crew to sign off on humanitarian grounds and provided personnel to safeguard the vessel.

The remaining crew were met by Gard's local correspondent and received their outstanding wages after verification of their claim.

Even though the crew has been signed-off and paid their outstanding wages, the case is far from over. As mentioned above, the Member is obliged to reimburse the Club for any costs paid under the certificates

which are not covered under the clubs' Rules. Furthermore, the crew has a maritime lien over the vessel for their unpaid wages. Local applicable law in compliance with the MLC assigns the rights of the crew to the Club after payment of wages and Gard is currently involved in a recovery process in the local courts. Courts around the world have varying expertise in handling maritime matters and only time will tell how long it will take for the crew to get the balance of the wages due above what has been paid by Gard. Indeed, the advice to seafarers from the ITF is to not wait to make contact with the clubs as the limit of the club's obligation is four months and that may be the entirety of what they may recover.

#### **Lessons learned**

In Gard's experience, early engagement with authorities, Flag State as well as the Port State where the abandonment of the seafarers takes place, is crucial for a swift outcome. We are hopeful that Gard's outreach program to governments has helped us in developing good relationships which may also assist in the prompt resolution of abandonment claims.

For the authors, the handling of MLC claims proved to be different from handling P&I crew claims because we worked directly with the abandoned seafarers who were suffering in inhumane conditions. We are pleased to see that the MLC certification and insurance requirement now supported by the clubs did ultimately provide the seafarers the assistance they needed to get off the ship and to recover four months of outstanding wages guaranteed under the MLC.

Source: Gard (<http://www.gard.no/web/updates/content/25481418/the-maritime-labour-convention-theory-and-practice>)

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(4) Drewry, 17 May 2018

## **Land-Sea integration – the new frontier of shipping**

Our last briefing described the opportunities and challenges of Port Community Systems (PCS) in the digital transformation of ocean shipping. PCS should be active in pivoting the maritime industry towards inland operations as we have witnessed more strategic initiatives recently. But they face a number of challenges in relation to inland container management, complex technology model and the variety of stakeholders.

#### **Ocean carriers and ports are investing in inland services**

Ocean carriers have announced their plans. Maersk's strategy is to become the global integrator of container logistics, building an end to end integrated logistics solution connecting the entire supply chain through a one stop shop. While French carrier CMA CGM is moving in the same direction with its recently announced stake in CEVA Logistics and its multi-temperature logistics facility at DP World's London Gateway. And large ports such as Rotterdam with their 2.6 million TEUs moving inland annually are enhancing their intermodal operations by investing in container shuttle train operator PortShuttle and Nextlogic electronic platform. Cargo owners are at the centre of these initiatives as demonstrated by the "Peel Off" program at the Port of Los Angeles which increases shipment velocity for high-volume shippers.

Integration of land with sea operations is more than a simple service enhancement of traditional maritime service providers. It provides new service options and additional value for BCOs as well as broader economic and environmental gains.

#### **Critical gains for the industry**

The inland leg of the container shipping supply chain is under pressure to achieve rapid efficiency gains. The evolution of carrier alliances and larger vessels has made the integration of inland and port operations a key efficiency factor with the risk of increasing congestion if smart planning and shipment release systems are not in place. In particular, the once moribund practice of vehicle booking systems (VBS) has seen quite a renaissance of late, supported by cloud and mobile app technologies. Already the port of Manila has reported a 50% rise in productivity thanks to implementation of a VBS.

Economies of scale have slashed costs, but empty container repositioning operations remain unlocked with 33% of containers on the road carried empty.

Increasing compliance requirements, whether for security or environmental purposes, require more data to be passed and checked on the land side.

Cargo owners understand the efficiency gain opportunity for more information and better control of Detention & Demurrage. Their expectations for more land-sea integrated services open opportunities to technology driven operators.

### **So which technology is likely to change inland container logistics?**

Technology initiatives are addressing specific problems such as terminal or depot gate appointments management, real time asset tracking and scheduling systems, container reuse and electronic documentation. For instances, technology companies such as Matchback Systems or Avantida are engaging the street turn and triangulation challenge, in North America and Europe. Boston Consulting Group's (BCG) container Xchange addresses the repositioning cost burden through its container interchange marketplace. Australia based 1-Stop.biz and Containerchain.com are actively implementing vehicle booking systems, which connect depots, terminals and truckers through mobile apps in various Asia Pacific ports. The objectives are better synchronisation of yard movements with truckers, less manual processing and more analytics. Elane's container drayage marketplace Tuochebao.com claims 80% market share in China thanks to a complete service including truckers' invoice generation and payment. These container trucking apps tend to be regionally focused, such as "matchbox.bid" in Africa. The trend is well supported by carriers with Maersk's development of its "spotlanes.com" portal covering certain locations and CMA CGM's investment in the collaborative port haulage platform e-Dray.

### **Standalone applications are not enough**

Inland container logistics needs scalability, data and process re-engineering to rapidly reach the expected gains brought about by predictive analytics, planning and marketplace processes. It requires market wide adoption and alignment of players' operational systems through an acceptance of a minimum set of standard practices. It can be tricky as it may need public and multiple private stakeholders to collaborate. Moreover, there is structural complexity attached to each region such as chassis management in North America. Carriers may still struggle with forecasting their empty container positioning needs. Beyond technology, challenges can simply be in the behavioural practice of moving to more standardised processes.

Such a systemic and integrated approach is likely to succeed through the initiatives of large operators or authorities seeking safer and greener inland container logistics. Their support in encouraging inland container start-ups should drive some of the coming changes.

Source: Drewry

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(5) Hellenic Shipping News, 15 May 2018/ Watson Farley & Williams

## **Shipping Waste and Waste Ships**

Dutch shipowner Seatrade was recently found in breach of the EU Waste Shipment Regulation (the "Waste Regulation") after selling four reefer ships for scrapping in India, Bangladesh and Turkey in 2012. This case raises interesting questions about the interaction between the Waste Regulation and the EU Ship Recycling Regulation (the "Recycling Regulation"), attracting considerable interest from owners and operators alike.

With environmental and health & safety issues currently appearing at the top of the agenda for the maritime industry as well, it is a good time to review the international and EU laws that govern the transboundary movement of waste and the end-of-life scrapping of ships as well as the potential impact of Brexit on the UK's international obligations in these areas.

### **The Basel Convention**

The Basel Convention was introduced to regulate transboundary movement of hazardous materials, such as asbestos, polychlorinated biphenyls (also known as PCBs), waste oils and other materials that can be harmful to human health and the environment. One of its primary aims is to ensure that the receiving country has the facilities required to store and treat such waste. Given the economic and regulatory disparity between developed and developing countries, there has long been a concern that richer nations have been dumping their waste in poorer nations, irrespective of the recipient's ability to properly deal with the waste, and exposing their workforces to high rates of injury and death. The Basel Convention entered into force on 5 May 1992 and to date 186 countries are party to it.



### **Waste Regulation: Overview**

The Waste Regulation brings the Basel Convention into EU law by making the transfer of waste (not just hazardous waste) between countries subject to a system of 'prior informed consent' between the regulatory agencies of those countries.

The type of prior informed consent required depends on the following factors:

- the type of waste being transported;
- whether it is being shipped for disposal or recovery; and
- whether the waste is to be transferred between two EU member states or out of the EU to (or via) a 'third country' (and whether that third country is subject to the OECD Decision or a signatory to the Basel Convention).

### **Type of waste**

The Waste Regulation categorises waste types under two principal headings:

- 'Green Listed Waste' (essentially non-hazardous waste); and
- 'Amber Listed Waste' (essentially hazardous waste).

Green Listed Waste is generally subject to lighter touch regulation, provided it is being shipped for recovery. However, Green Listed Waste must still be accompanied by certain prescribed information and must be managed in an environmentally sound manner throughout its movement.

Amber Listed Waste is subject to a formal notification procedure whereby the shipper of the waste must submit a notification to the regulatory authority in the country of origin, which then notifies the destination regulatory authority and any authorities in transit countries. The notification procedure is subject to strict time limits and, if the shipment cannot be completed, the waste must be returned to its origin. This 'take-back' mechanism for waste that cannot be adequately (or is illegally) recovered or disposed of, reflects an important tenet of the Basel Convention. Shipments of Green Listed Waste for recovery to non-OECD third countries are also subject to enhanced regulation until the point of recovery.

### **Disposal or recovery?**

The terms 'disposal' and 'recovery' are defined in the Waste Framework Directive. Broadly speaking, disposal operations comprise landfill, incineration or permanent storage/impoundment and recovery operations comprise reclamation or re-use of the materials in some way. Disposal and recovery are mutually exclusive activities; however, the distinction may not always be entirely clear, especially given that recovery and disposal operations have experienced significant technological advances in recent years. With innovative ways of treating waste coming to market all the time, it can become unclear at what stage recovery operations are complete.

### **Prohibited waste shipments**

There are several circumstances in which the Waste Regulation prohibits shipment, which are broadly set out below:

- imports and exports of waste for disposal between an EU member state and a third country;
- imports and exports of hazardous waste for recovery between an EU member state and a third country;
- exports of any waste from an EU member state to the Antarctic; and
- exports of any waste for disposal from an EU member state to its overseas countries or territories and, in some cases, exports of hazardous waste for recovery from an EU member state to its overseas countries or territories.

### **UK implementation**

While the Waste Regulation has direct effect in EU member states, national legislation is required to designate a competent authority and set out offences and penalties in the case of a breach. These requirements are implemented in the UK under the Transfrontier Shipment of Waste Regulations 2007 (as amended).

### **Recycling of Ships**

#### **Hong Kong Convention**

The Hong Kong Convention was adopted in 2009 and will come into force 24 months after ratification by 15 states with at least 40% of the world shipping fleet between them and a combined maximum annual recycling capacity of at least three percent of their combined registered tonnage over the previous decade. At the time of writing, six countries have ratified the Hong Kong Convention but to satisfy the relevant fleet and recycling capacity conditions, certain countries such as China, India, Pakistan and Bangladesh will need to ratify it. Much progress was made in 2017 with India drafting legislation that will pave the way for ratification of the Hong Kong Convention "in the not-too-distant future"; however, in an effort to reduce waste imports and fight pollution, the Chinese government recently announced an import

ban on ship scrap imports, which will take effect from 31 December 2018. This puts the onus firmly on the Indian subcontinent – which has been experiencing a recent resurgence in its ship breaking industry – to take the necessary steps to ratify the Hong Kong Convention. At present, there is no requirement on EU member states to ratify the Hong Kong Convention; however the Recycling Regulation puts EU member states in a position to comply with the Hong Kong Convention once it is in force.

### **The Recycling Regulation**

The Recycling Regulation entered into force on 30 December 2013 although its provisions will come into force incrementally, with some not applicable until 31 December 2020.

In 2016, under the Recycling Regulation, the EU commission adopted a first version of a European list of approved ship recycling facilities (the “European List”). The European List will apply from 31 December 2018 and will prevent large commercial seagoing vessels flying the flag of an EU member state from being recycled anywhere other than a recycling facility that meets certain specific safety and environmental requirements. The application of the European List aims to facilitate safe and sound ship recycling, thereby reducing its negative impacts on human health and the environment.

Also applicable from 31 December 2018 is the prohibition or restriction of the installation or use of certain hazardous materials on ships, including asbestos and ozone-depleting substances. Each new EU-flagged ship (or a ship flying the flag of a third country calling at an EU port or anchorage) will be required to have on board an inventory of hazardous materials (“IHM”) and EU-flagged ships going for dismantling must also have an IHM on board. Ship recycling yards will also be required to provide a “Ship Recycling Plan”, specifying the manner in which each ship will be recycled, depending on its particulars and its inventory.

### **UK implementation**

As with the Waste Regulation, the Recycling Regulation has direct effect in EU member states but individual member states must implement national legislation to designate competent authorities and set out offences and penalties in case of breach. The UK intends to implement its own statutory instrument to support the Recycling Regulation but since consultation ended on 15 September 2017, no further updates have been provided by the UK Government.

### **Waste Regulation and Recycling Regulation: Interplay**

End-of-life ships contain a range of hazardous materials and substances including asbestos, heavy metals, oil residues and PCBs to name but a few. Whilst the Waste Regulation does not specifically reference ships as waste, end-of-life vessels can of course be caught should they or their constituent parts fall within the definition of waste under the Waste Framework Directive.

There is some debate as to whether the Waste Regulation should apply to the recycling of ships or not, as this is actually more appropriately covered by the Hong Kong Convention (once in force) and the Recycling Regulation. In support of this school of thought, the European Commission has stated that to “ensure legal clarity and avoid administrative burden, ships covered by the [Recycling Regulation] will be excluded from the scope of the [Waste Regulation]”.

Given that the European List will apply from 31 December 2018, the temptation may be to ‘flag out’ of the EU to avoid the Recycling Regulation. However, the Waste Regulation applies to all vessels trading in Europe regardless of the flag they sail under and the Seatrade case acts as a stark reminder that for the time being at least both legislative regimes should be observed in the context of ship scrapping.

### **Brexit Effect**

The UK Government’s current policy is that the UK will continue to be bound by its international environmental obligations following Brexit. A distinction will have to be made, though, between: international agreements entered into by the EU alone (which the United Kingdom will need to sign and/or ratify); mixed agreements entered into by both the UK and the EU (where the legal position on whether the UK will remain bound will need to be clarified); and agreements that the UK has separately signed/ratified (where the position is relatively simple).

The UK signed the Basel Convention in 1989 and went on to ratify it in 1994 meaning that it will remain bound by it following Brexit. However, it will be a “third country”, which means that the movement of waste between the UK and the EU will become more problematic and, in the case of hazardous waste, unlawful. In terms of EU law specifically, the EU Withdrawal Bill will, once enacted, transpose all direct EU legislation into UK law so, notwithstanding their direct effect already, the Waste Regulation and Recycling Regulation will remain UK law following withdrawal.

Whilst on the face of it the position in respect of transboundary shipment of waste and scrapping seems relatively simple compared to other areas of international environmental law, there is an inherent risk that, following Brexit, those operating from or through the UK will be faced with a regulatory vacuum. For

example, one problem that has not been meaningfully discussed is that underlying ECJ/CJEU case law will not form part of UK law despite the well-meant intentions of the EU Withdrawal Bill. UK judges would need to consider whether to take into account new CJEU decisions following Brexit when interpreting EU-derived UK law. The potential for divergence from EU law following Brexit is obviously one of the advantages of leaving the EU but the reality is that if we are to have a successful trading relationship with our European neighbours, the prospect of any significant divergence of standards or systems of governance may be vanishingly small.

More specifically regarding ship scrapping, the European List currently includes facilities in the UK; however the European Commission issued a Notice to Stakeholders dated 28 March 2018 in which it stated that, subject to any transitional arrangement pertaining to Brexit, the EU rules on ship recycling including the Recycling Regulation, shall no longer apply to the UK as of 00:00hrs (CET) on 30 March 2019. Presumably, therefore, following Brexit, if a UK ship recycling facility wishes to be considered to be (re)included on the European List, it will have to apply to the Commission as a third country facility. This gives just a flavour of some of the loose ends and unanswered (perhaps even unasked) questions that the UK Government is going to have to grapple with during the transition period and in the years after any withdrawal from the EU.

#### **Conclusion**

The Waste Regulation has wide application and, as demonstrated in the *Seatrade* case, can be used to apply to the scrapping of ships. The safe scrapping of ships is high on the agenda for the EU and the introduction of the European List is demonstrative of the EU's drive to improve global standards for ship breaking.

Despite the UK's decision to withdraw from the EU, it is highly unlikely that UK standards will diverge from the EU given its international commitments and the need to maintain strong political and economic relations with its European neighbours.

Source: Watson Farley & Williams

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(6) Hellenic Shipping News, 14 May 2018/ BBC

## **The battle of the gas-sucking mega giants is set to begin**

Off the coast of Western Australia, a battle between mega giants is unfolding. The combatants involve the world's biggest semi-submersible platform, the longest sub-sea pipeline in the southern hemisphere, and the largest floating facility ever built.

They're all there for the same reason: natural gas – and they're hoping to start drawing it up this month.

As several countries begin to move away from coal as an energy resource, this alternative fossil fuel, which produces 50% less carbon dioxide for every unit of energy generated, is increasingly in demand in our energy hungry world.

Consumption is forecast to rise to 177 trillion cubic feet (tcf) or 5,012 billion cubic metres by 2040, up from 124tcf in 2015, says the US Energy Information Administration.

That's why Shell's gigantic Prelude platform – which is 488m (1,600ft) long and displaces roughly as much water as six aircraft carriers – is competing with Japanese firm Inpex for access to gas in the Browse Basin.

Although they are working on separate gas fields, those fields are connected. Shell and Inpex are essentially vying for the same resource.

"The way I describe it – I have a slide I present to clients and I have a picture of two people drinking out of the same milkshake," says Saul Kavonic, an analyst at energy consultancy Wood Mackenzie.

Prelude is a true behemoth.

It has been designed not only to collect gas from sub-sea well heads, but also liquefy it on board at temperatures of -162C.

As a liquid, the gas takes up significantly less space, making it easier to transport around the world on ships. This liquefaction would usually be done after piping the gas onshore, but Prelude can do the job herself – something never achieved on such a scale before.

Some serious technology is involved in making this happen.

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Prelude has high-capacity pumps that can draw 50 million litres of water from the sea every hour to help cool down the natural gas. Once liquefied, it is then stored in massive storage tanks with a volume equivalent to 175 Olympic swimming pools.

And this all has to keep going even through the worst imaginable weather. Prelude's hefty mooring chains are designed to survive Category 5 cyclones.

While Inpex has opted for sending its gas onshore for liquefaction, it also has a huge offshore semi-submersible platform to extract water and impurities from the gas first. And nearby, there is a floating storage and off-loading facility called Venturer.

Collectively, Inpex has dubbed these bits of mega-infrastructure Ichthys – ancient Greek for fish.

However, both projects have been beset by delays and spiralling costs, which may be why neither company was prepared to talk to the BBC for this feature.

The pressure to start drawing gas first is obviously intense.

The race for Browse Basin gas has even ignited competition on an international scale. Australia may overtake Qatar to become the world's top exporter of liquefied natural gas (LNG) once Ichthys and Prelude production is in full swing.

But will any future vessel match or even exceed the scale of Prelude?

Mr Kavonic says the fossil fuel industry isn't likely to try to build one any time soon.

"We need new projects to meet demand [for gas] in the early 2020s," he explains. "We needed projects to be sanctioned last year and that didn't happen, we only saw one."

That single project will be built by Italy's oil and gas giant Eni. A floating facility off the coast of Mozambique, it will have a slightly smaller capacity than Prelude – 3.4 million tonnes of LNG per year versus Prelude's 3.6 million. The capacity of Ichthys will be much bigger, at 8.9 million tonnes.

"There's so far no [other] similar projects under the radar," says Jean-Baptiste Dubreuil from the International Energy Agency.

The only other comparable vessel might be Allseas' Amazing Grace – an enormous twin-hulled construction ship due to be built over the coming years. Its job will be to lift offshore platforms, however, not process gas.

Without more projects for gas production, industry watchers worry that, in about five years' time, demand for natural gas could outstrip supply.

There is the "spectre of an LNG supply shock in the early 2020s" looming, says Stuart Elliott, gas editor at data provider S&P Global Platts.

The problem could be particularly pronounced in Asia – especially China.

"Last year, Chinese production increased by 8%, but they're not able to keep up with the growth of demand," says Mr Dubreuil. "We expect their needs for imports will grow over time."

In fact, the IEA thinks that China will be importing 43% of its natural gas by 2040. This supply will need to be reliable if the country wants to avoid the gas shortages it experienced last winter – caused, ironically, by a botched attempt to cut coal use.

In the meantime, there is some hope that the unexpectedly speedy growth of renewables – particularly solar and wind – will help to plug the gap.

But there's little doubt that over the next few decades many countries, including the UK, will be heavily reliant on gas for their energy needs.

Prelude and Ichthys are due to come online soon, but neither Shell nor Inpex will commit publicly to a start date.

And with wholesale natural gas prices currently half what they were in early 2014, such multi-billion dollar projects may never recoup their outlay.

As climate change climbs to the top of the world's agenda, funding such huge fossil-fuel extraction projects – impressive feats of engineering as they are – will look increasingly risky.

Both Shell and Inpex must be hoping that their sea-faring mega giants don't go the way of the dinosaurs.

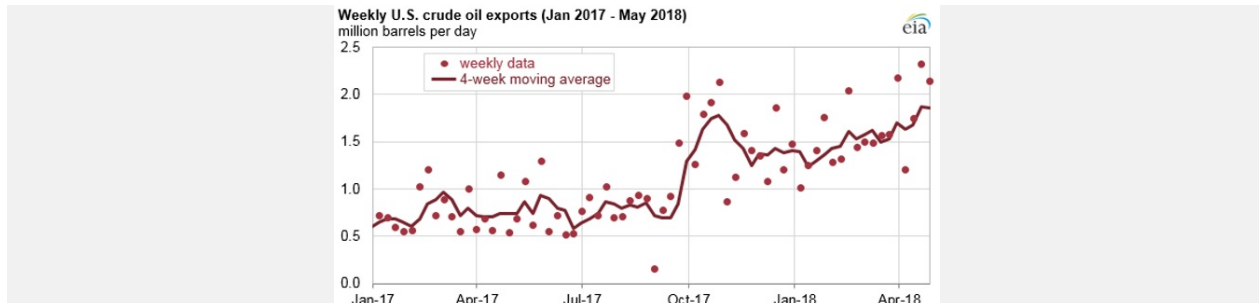
Source: BBC

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(7) US Energy Information Administration, 16 May 2018

## U.S. Gulf Coast port limitations impose additional costs on rising U.S. crude oil exports

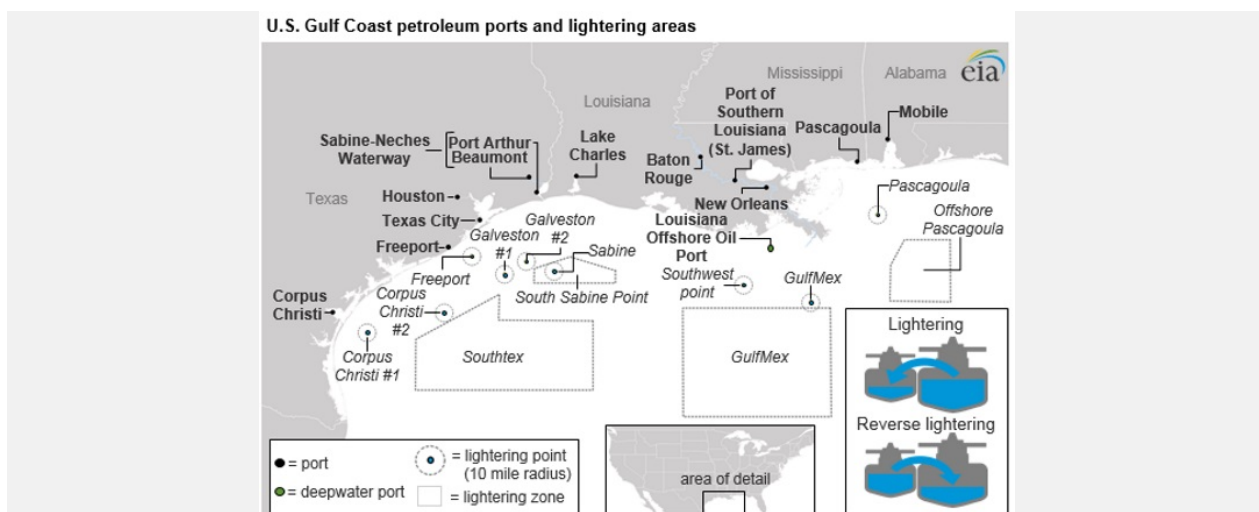
U.S. crude oil exports averaged 1.1 million barrels per day (b/d) in 2017 and 1.6 million b/d so far in 2018, up from less than 0.5 million b/d in 2016. This growth in U.S. crude oil exports happened despite the fact that U.S. Gulf Coast onshore ports cannot fully load Very Large Crude Carriers (VLCC), the largest and most economic vessels used for crude oil transportation. Instead, export growth was achieved using smaller and less cost-effective ships.



Source: U.S. Energy Information Administration, Weekly Petroleum Status Report

Each VLCC is designed to carry approximately 2 million barrels of crude oil. Because of their large size, VLCCs require ports with waterways of sufficient width and depth for safe navigation. All onshore U.S. ports in the Gulf Coast that actively trade petroleum are located in inland harbors and are connected to the open ocean through shipping channels or navigable rivers. Although these channels and rivers are regularly dredged to maintain depth and enable safe navigation for most ships, they are not deep enough for deep-draft vessels such as fully loaded VLCCs.

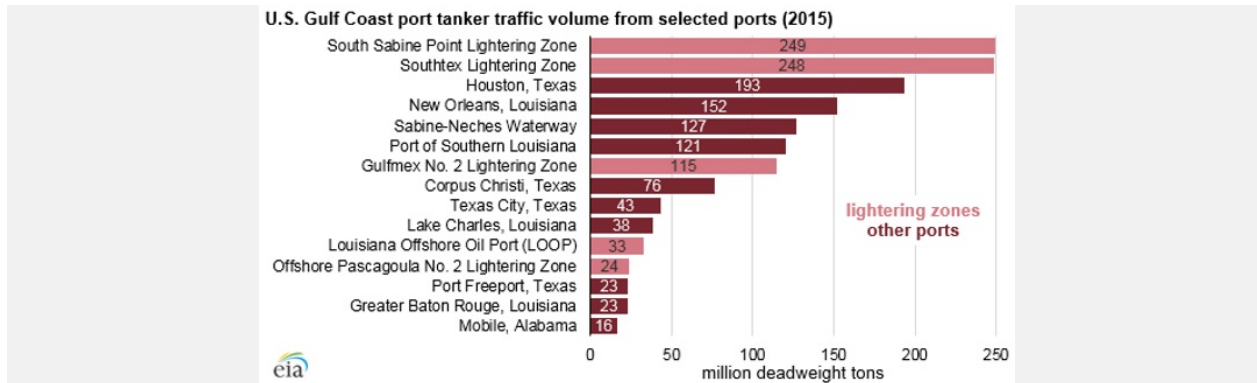
To circumvent depth restrictions, VLCCs transporting crude oil to or from the U.S. Gulf Coast have typically used partial loadings and ship-to-ship transfers. The ship-to-ship transfer process known as lightering refers to a larger vessel partially unloading onto a smaller vessel. Reverse lightering occurs when smaller vessels load onto a larger vessel. These transfers take place in designated lightering zones and points that exist outside many of the largest U.S. petroleum ports.



Source: U.S. Energy Information Administration

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Data from the U.S. Maritime Administration (MARAD) for 2015, the latest year for which data are available, indicate that the two largest ports of call for tankers carrying crude oil and petroleum products in the United States are lightering zones. The South Sabine Point and Southtex lightering zones each had nearly 250 million deadweight tons of tanker traffic volume in 2015. Deadweight tons are a measure of a vessel's capacity to carry cargo by weight. The number of barrels per ton varies based on the density of the petroleum product or crude oil cargo.



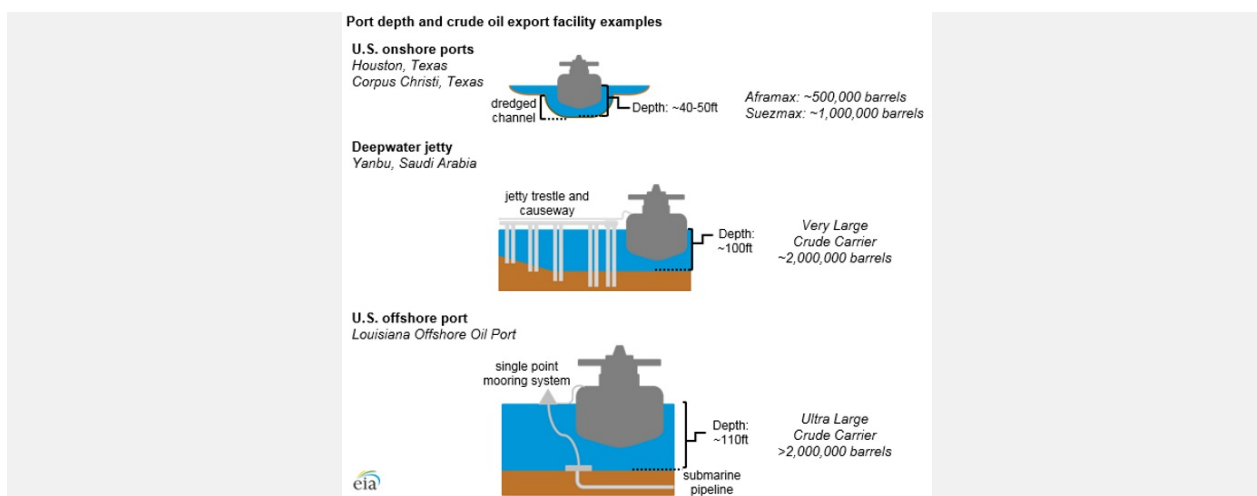
Source: U.S. Energy Information Administration, based on U.S. Maritime Administration (MARAD)

Currently, most U.S. Gulf Coast petroleum ports are capable of accepting vessels with capacities of approximately 500,000 barrels of crude oil (AFRAMAX). The number of ports that can accept vessels with capacities of approximately 900,000–1,000,000 barrels (SUEZMAX) is relatively limited. Four AFRAMAX-sized vessels or two SUEZMAX-sized vessels are required to carry the same amount of crude oil as a single VLCC.

The inability to fully load larger and more cost-effective vessels has pricing implications for U.S. crude oil exports. Using a number of smaller ships requires a wider price spread between U.S. crude oil and international crude oil prices to compensate for the lower economies of scale and costs associated with reverse lightering and partial loadings.

The costs associated with using smaller vessels are less of a factor for exports over shorter distances. However, as exports to Asia are a growing share of total U.S. crude oil exports, these costs will become more important.

By comparison, other nations that export large volumes of crude oil generally have deeper and wider navigable waterways that are not located in inland/onshore harbors. For example, in Yanbu, Saudi Arabia, located along the Red Sea, the crude oil export facility uses a jetty trestle that extends out to berths in water deep enough to fully load VLCCs.



Source: U.S. Energy Information Administration, Saudi Aramco, Louisiana Offshore Oil Port

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The Louisiana Offshore Oil Port (LOOP), located offshore southern Louisiana in the Gulf of Mexico, is currently the only U.S. facility able to accommodate a fully loaded VLCC. LOOP, which has storage, undersea pipelines, and single-point mooring facilities in deep water, was exclusively used as an import facility until it was modified to allow exports earlier this year.

Weekly U.S. exports of crude oil have surpassed 2 million b/d four times so far in 2018, and trade press reports indicate two of those instances—the weeks of February 16 and March 30—corresponded with weeks in which LOOP loaded a VLCC for export.

MARAD, the agency charged with permitting deepwater offshore ports, currently has no pending applications for new deepwater ports similar to LOOP. Instead, trade press and company announcements have indicated the most likely crude oil export projects with the intention to fully load VLCCs will be located near the port of Corpus Christi in southern Texas. Corpus Christi has access to increased domestic production of light-sweet crude oil from the Permian Basin and Eagle Ford and regularly exports crude oil from the Oxy Ingleside Energy Center and other facilities.

Source: EIA

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