

CLEAN bill of health

Ship recycling poses an ethical and practical challenge for the shipping and cruise industry and has, until recently, remained largely unregulated. Rebecca Burgess talks to **Henning Gramann**, environmental engineer at Germanischer Lloyd, about how new legislation is set to clean up the sector worldwide.

Ship recycling has been making headlines in recent years, with exposed polluting practices and hazardous working conditions in shipyards located principally in Asia. The majority of vessels are broken down in Bangladesh, India and Pakistan where there is little professional knowledge about the handling of hazardous onboard materials or procedures for their disposal.

Each year, workers die in accidents at recycling centres while the significant number of people dying of asbestosis in villages remains largely undocumented.

Oil and hazardous materials are poured into 'bottomless pits' on beaches, contaminating the land, while copper cables are burnt, releasing toxic gases.

Naturally, these practices have grabbed the attention of policy advisors and environmental non-government organisations such as Greenpeace.

While cruise ships make up a small percentage of the vessels sent for recycling, the decision on where and how to recycle one is huge in terms of public image.

That decision will become even more crucial when legislation agreed by the International Maritime Organisation (IMO) in London in October 2008 is ratified and enforced internationally as early as 2010.

For Henning Gramann, environmental engineer at Germanischer Lloyd, it is a landmark step in cleaning up an industry that operates under voluntary regulation.

Ship recycling is covered by the Basel Convention, which controls the import and export of waste, but it is a land-based law, unenforceable at sea and easy to circumvent. There are also guidelines from the International Labour Organisation targeting waste health, but nothing specifically for recycling ships.



Gramann says the state of the industry first came to the public's attention in 1996 when *The Baltimore Sun* newspaper ran stories on the practices at US and Indian shipyards.

Since then the spotlight has focused on the Indian subcontinent, where the majority of ships are scrapped.

'This is where ship owners can get the best price for their vessels, but for the cruise industry it is an image issue so they are more careful,' says Gramann.

For the recycling yards, it is about offering the best price to attract ships, with the cost usually directly proportional to the environmental and health and safety measures in place.

In China, another major player in the market, the rates are higher and less competitive because the country invests in better working standards for its employees.

The US operates a closed market on ship recycling as US law prohibits the import and export of PCBs. However, the US can circumvent these existing laws by removing PCBs before sending a ship for scrapping in Asia.

However, Gramann says some ship owners do seek higher standards of recycling, such as the Danish shipping line Maersk, which works closely with Chinese recyclers.

'Some ship owners are looking for best practice and for recyclers who can meet their standards.

'They accept a much lower income, supervise the work, provide a list of hazardous materials and offer pre-cleaning before the hull is cut into pieces. No beaching is allowed and they work alongside the dock,' he says.

It is this best practice which the new regulation will promote in dockyards worldwide, with ship owners required to provide an up-to-date inventory of hazardous materials and monitoring of ship recycling centres.



IMO legislation is set to improve the working practices of ship recycling.

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Currently, ship owners only work towards the voluntary 'Green Passport' standards when listing hazardous materials on a ship. 'Some Green Passports have been prepared by untrained shipboard crew using a supporting brochure,' Gramann says. 'The Green Passport certificate states that it has been prepared but nothing on it is necessary correct. This is risky because the content may be taken for granted by the ship recyclers.'

Meeting the convention

As part of the IMO working group, Gramann has played a vital role in bringing the new convention to fruition, following years of research. The final discussions are due to be held at a conference in Hong Kong in May 2009, and if the working group is confident the convention should be ratified, that process will begin.

A certain number of flag states and recycling states must ratify the convention before it can come into force. This is expected to be in the region of 25 flag states, 25% of the fleet.

However, the European member states have indicated their 27 flag states will

ratify the convention immediately, which should be sufficient to bring it into force.

One of the convention's key components is the Inventory of Hazardous Materials, which must be provided and updated by the ship owner throughout the life cycle of the ship.

It will take in new builds, the supply chain, the manufacture of components and must be updated every five years or whenever changes are made to a vessel.

The convention will also work with ship recycling facilities to certify their health and safety standards and environmental practices.

The recycling facilities will not be allowed to handle ships with PCPs on board because these need to be removed beforehand or a plan agreed for their removal. The ship owner must also provide a certificate approved by the flag state that the ship is ready to be recycled, which will then be forwarded to the recycling state to be agreed within 14 days.

Gramann hopes these changes will prove significant. 'There are about 50,000 ships which have five years to comply,' he says. 'To deal with this huge demand, Germanischer Lloyd is offering 'early bird' rates and trying to cover as many ships in the interim.'

However, the legislation can only be enforced in countries which ratify it and both the flag country and receiver country of a ship need to be compatible. 'It may give rise to two markets, one conventional and one non-conventional and it will not be possible to have interaction between the two,' Gramann warns. 'It's hard to predict what the take up will be and there is a risk that a ship could change from a convention to a non-convention flag state. However, non-governmental organisations will maintain pressure and highlight cases of bad practice in the media.'

Enforcing the legislation is another challenge, with the Port Authorities checking for IHM certificates and the recycling states responsible for overseeing their centres and compliance with waste disposal laws.

However, Gramann notes that ship owners are not happy. 'We have done a lot of presentations to show them why something has to be done, but it demands a large effort on their part,' he says. 'If you have a ship with an IHM, it may have an operating life of around 35 years.'

'However, they also see the need for change and accept if they have to do it then everyone should because of the nature of competition.' **wc**

From blue to green

The 46,000-tonne *Blue Lady* is one of the most notorious cruise ships to sail into the storm of ship recycling. The biggest cruise ship at sea in the 1960s is being recycled at Gujarat's Alang shipyard in India after years of legal battles.

The ship, formerly known as *SS France*, was docked in Germany following an onboard explosion in 2003. It was then sold by its owners Star Cruises to an investor to become a hotel and conference ship in Malaysia. It was given permission to leave port but sold en route and re-directed to Bangladesh for recycling. Refused entry because of environmental concerns, it was sent to India and beached.

A year-long court battle followed in the Indian courts, led by environmentalists who said the Norwegian ship contained 900 tonnes of toxic waste such as asbestos.

The Supreme Court finally gave the go-ahead for its recycling in late 2007, providing strict safety guidelines were followed by the company Haryana Shipbreakers.