

THE SHIP RECYCLED: GOOD RIDDANCE... OR NOT?

A personal account from an insider

After twenty years in this business, it keeps me amazed that, despite efforts made by responsible shipowners, authorities, and other stakeholders, basically nothing has changed and that the ship recycling industry is still polluting this world. Health and safety control have improved only slightly, but we still see many accidents happen in this dangerous business.

I sincerely hope that the next generation will continue to pursue what Sea2Cradle started more than twenty years ago when we investigated a better alternative for recycling ships compared to the dangerous practices still seen today at the beaches in India, Bangladesh and Pakistan, where most end-of-life ships end up.

Controlled and contained are the keywords

Controlled means control over the recycling methodology, health and safety and environmental spills. A controlled methodology means not applying the gravity method used at the recycling beaches and some yards in the EU, USA and Turkey. The issue with this method is that you create a dangerous situation when dropping masts, blocks and other structures, weighing more than 20 tonnes. To put this in perspective: A pipe of 10 kg falling from 10 metres on the hard hat of a worker is potentially fatal. Our supervisors often see dangerous situations at recycling facilities such as uncovered holes, working at height without fall arrest, cutting of blocks without taking a proper look at the situation, housekeeping not in order, torch cutting through cables, lack of proper escape routes, poor firefighting management and equipment not in good order.

Contained means keeping the dirt, waste, fuels, hazardous materials and other polluting materials and fluids under control without any spill into the environment. Easier said than done, as we often

encounter a general lack of understanding of the consequences of spillages at recycling facilities. What I have learned in the past two decades, is that you can and must use the vessel and the quay side as containment areas. Spillages within the hull of the ship are kept contained and can be cleaned and disposed easily. Spillages ashore can also be cleaned up easily if the

I suspect it will take yet another generation before ship recycling is a clean industry

area has an impermeable membrane, is concreted and has a proper drainage system.

The moment blocks and equipment containing waste and fluids are



Aft trimmed hull section as fluids containment. Note the oil boom in place and the crane used for controlled recycling (courtesy Sea2Cradle).

transferred from ship to shore, the situation becomes riskier. The distance between the contained area of the ship and the contained area ashore should be kept to a minimum and spill prevention measures such as oil booms should be installed. The application of oil booms is not possible at the beaches in India, Pakistan and Bangladesh. The tidal influence is such that the vessel will rest on "dry" land during low tide and pollutants are washed away during high tide.

The dos and don'ts

The recycling process actually starts at the design phase of a vessel, rig or other marine asset. Which materials are used? Can these be re-used when it comes to recycling and should designers not choose to use higher valuable materials? Can we think of materials whereby cleaning of tanks, pipes and equipment is easier and removes all potentially hazardous remains of the oil industry such as NORM (Naturally Occurring Radioactive Material) and mercury? Is the construction such that residues of the cargo and the operations increase the presence of hazardous materials at so-called hot spots? When will the industry finally control the use of asbestos, especially white asbestos (chrysotile), which, in some countries, is still considered as non-hazardous?

During the service of a vessel, its maintenance is important, but more attention should be given to the use of replacement materials and spare parts. Too often our surveyors find sheets used for cutting replacement gaskets on board that contain asbestos. This presents us with the challenge of determining where the materials have been used, but it also endangers the environment in the workshop itself with asbestos dust all over the place.

When the shipowner has no further employment for the vessel, and cannot sell it onwards for further trading, he/she must take the decision to recycle. The owner is confronted with an uncommon situation and, because of the complexity of the subject, in most cases, the house broker will be tasked to sell the vessel for scrap without knowing what the consequences of this path may be. It's the easy

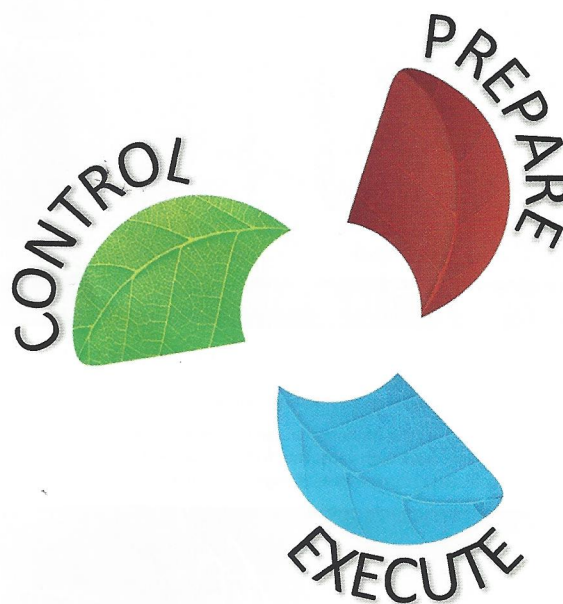
way and it works because there is hardly any control by authorities. Only recently we noted several occasions where European shipowners were prosecuted for the consequences of their wrong decisions.

Vital process activities

So, what should a shipowner consider when the decision is made to recycle? Basically three keywords should be kept in mind: Prepare, execute and control.

Prepare:

- Rules and regulations: Know how and where you need to follow regulations in force such as the Basel Convention, the EU Ship Recycling Regulation and Waste Shipments Regulation, and not to forget the upcoming Hong Kong Convention (still not ratified), all of which can assist the shipowner with guidelines.
- Financial consequences of the sale are always a headache. The treasury department of a shipowner is known to keep the book value high for obvious reasons. Confrontation with the sale for a price lower than is listed in the books forces the shipowner to sell the vessel to the highest bidder.
- Prepare the ship, clean, arrange gas-free and most importantly arrange for the creation and/or finalisation of the IHM (Inventory of Hazardous Materials) by qualified surveyors. Encountering IHMs of just one page whereby only a statement "to the best of our knowledge" is provided still gives me the shivers.
- It is important to choose a broker that is acquainted with the (steel) market, the players (and the crooks), the responsible and trusted yards and the right contract such as BIMCO's Recyclecon. Remember to have alternatives in place, even just before delivery when a yard wants to re-negotiate the price because of various reasons.
- See to it that the yard has an SRFP (Ship Recycling Facility Plan)



Quality cycle of vital recycling process activities (courtesy Sea2Cradle).

and has created the SRP (Ship Recycling Plan), based on, amongst others, the IHM.

Execute:

- The rules and regulations require the necessary paperwork is shared with, and approved by, authorities and their representatives (classification societies).
- Instruction to the crew, the superintendents and other stakeholders is important for a smooth delivery.
- Execution of the sale contract by trusted persons is obvious, but these persons should be aware of the ins and outs.

Control:

- After handover to the yard, most shipowners declare that they are not responsible anymore for the recycling. I have always wondered why. You sell an asset, but you are not willing to take your responsibility or "duty of care" for the agreed terms and conditions. The risk of being held responsible by workers or the yard because of false information is increasing. Court cases are currently running and before you know it, the shipowner must explain why certain decisions were taken.

What's coming?

In the next five to ten years, I foresee regulations change, fine-tuned, adopted and being enforced by flag states or other regulators. New cutting techniques are being tested right now, which will be safer, environmentally friendlier and more effective. The call for a stricter control of waste disposal will be louder. New techniques to make waste suitable for use in the building industry are already

introduced and will be developed further, aiming for a zero spill. For the longer term, a circular economy, protection of workers and environment and, finally, innovation are the key words for the ship recycling industry. These keywords require a completely different mindset for most of the shipowners, shipbrokers, banks, recycling yards, authorities, and the workers. Good riddance is still the way of thinking in many people's minds, but in fact, there is a lot which is not seen by stakeholders (whether on purpose or not). Currently, it's all about making money, which is important, but should not be the leading factor. How to change this mindset is difficult.

I have my hopes on the next generation, but must admit that I have my doubts too. I suspect it will take yet another generation before we finally can state that ship recycling is a clean industry. But our experienced managers and inspectors are ready to turn the tide for our clients. We assist shipowners with the responsible recycling of their assets.

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Responsible Ship Recycling Hazardous Waste Management



Zero Pollution, Zero Accidents, Zero Incidents

Sea2Cradle is a global expert in green and responsible ship recycling, providing a hassle-free way for ship owners to responsibly have their ship, rig, platform or FPSO recycled in a controlled and contained manner.

The entire process meets the highest standards of Health, Safety and Environment. We only work with yards that fully comply with our standards and those of the EU SRR, Basel Convention, HongKong Convention.



Expert on IHM management during ship recycling

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