

**CONSIDERATION OF THE DRAFT INTERNATIONAL CONVENTION FOR THE
SAFE AND ENVIRONMENTALLY SOUND RECYCLING OF SHIPS**

**Ensuring Sustainable Green and Safe Ship Dismantling
Concerning Beaching of Ships**

Submitted by Greenpeace International and FOEI

SUMMARY

Executive summary: This document addresses issues raised and statements made by India in SR/CONF/36 regarding the beaching method of ship recycling finding many of them to be false and misleading. It is strongly recommended that the Convention for the Safe and Environmentally Sound Recycling of Ships prohibit the use of intertidal beaches for a platform for ship recycling for all of the reasons outlined already in SR/CONF/14.

Strategic direction:

High-level action:

Planned output:

Action to be taken: Paragraph 43

Related documents: SR/CONF/14, SR/CONF/36

Introduction

1. In SR/CONF/36, India has made some erroneous assertions regarding the environmental superiority of the beaching method of ship recycling. With this document Greenpeace International (GPI) and Friends of the Earth International (FOEI) wish to comment on these statements. Below, the statements made by India are in italics, with the comments of GPI and FOEI in text following each.

Statements By India in submission SR/CONF/36 and Commentary

2. *“In this document India submits that the fears and objections expressed by an NGO and some developed countries on the environmental friendliness of the beaching method for the recycling of ships are unfounded. This paper substantiates that the beaching method is as environmentally friendly as the other methods in dry-dock or afloat, apart from the fact that the beaching method is more efficient and cost effective. In this paper India puts forth to the Conference the facts on the comparison of the beaching method vis-à-vis other methods of environmentally sound recycling of ships.”*

3. The assertion that running aground ageing ships with fragile hulls, laden with fuel and oil residues and with hulls known to be covered in heavy metal laden paints including extremely toxic TBT (which this body has outlawed), and then allowing these massive vessels to be cut by hand and sectioned without access to cranes and heavy lifting equipment, is environmentally superior is surprising. The assertion that a method that involves dropping cut sections containing hazardous substances into the sea where they are then grindingly winched ashore, and where all activities are conducted in conditions where, when accidents occur or fires break out, one is unable to quickly evacuate or bring aid to the fallen workers, or to quell fires due to the lack of access by emergency equipment, is environmentally superior is also surprising, to say the least. These are in fact assertions that defy science, norms of occupational safety and health law, coastal zone management law and hazardous waste facility siting laws to name but a few.

4. Submission SR/CONF/36 fails to substantiate its claim that beaching is as environmentally friendly as other established alternative methods of ship dismantling practised in all other parts of the world other than in South Asian beaches. Certainly, if one is willing to discount the externalities incurred both in terms of human health and the environment one might be able to make the case that beaching is more cost effective. But the externalities that would have to be overlooked include the destruction of the intertidal ecosystem, pollution of the sea, loss of fisheries and most devastating, loss of invaluable life and limb.

5. *“The beaching method has been in successful existence for several years for ship recycling in India at Alang and this has posed no threat to the environment.”*

6. Actual studies that have been accomplished indicate otherwise. In 1999 Greenpeace published their survey report entitled “Steel and Toxic Wastes for Asia”, which examined the beaching operations of Alang and Mumbai in 1999 at a time when independent surveys were still possible. Today neither journalists nor independent auditors are allowed to enter Alang. The Greenpeace team conducted soil and paint sampling and analysis and found TBT contamination in the sediments and sand at levels many magnitudes higher than what has been stipulated in European law the point at which biological damage begins to incur. Heavy metals such as lead were also discovered in high levels of environmental contamination. This is not because the yards are using lead and TBT in any process, but because the paint is friable and when scraped against the sand and without containment of any kind, nor ability to collect loss paint particles, the TBT and lead contaminated paint is constantly eroding into the intertidal zone. One could conduct a similar study of PCB contamination from friable paints and similarly they would no doubt be found in the marine environment near the shipbreaking yards. Further the study found serious contamination of the sea from oils that the hulls could not contain. The notion that one can site a facility managing toxic wastes such as TBT and PCBs which are highly persistent and/or toxic in an intertidal zone directly on surface marine waters and tide flats without access to any possibility to clean spilled material and yet call this environmentally friendly lacks credibility.

7. Indeed the Basel Convention Party experts in their Technical Guidelines stipulated that any activities involving the cutting of sections containing TBT, PCBs or other hazardous wastes should only take place over “impermeable floors.”

8. *“Furthermore, this method is the most efficient and cost effective method for recycling of ships from the smallest to the largest sizes, as the natural slope of the beach and the necessary tidal variations at Alang contribute to the easy and environmentally friendly way of ship recycling.”*

9. Utilizing a beach is the most “efficient and cost effective method” for recycling ships when one has not the possibility to utilize docks and cranes. However the world has had these

technologies for over 100 years now and the reason they are not employed in India, Pakistan, and Bangladesh is not because these are the only areas in the world with naturally sloping beaches, but because these are areas of the world where the shipping industry has found they are still able to avoid the costs required in providing such technologies and are allowed to operate in a primitive and unsafe manner.

10. *“The high tidal variations at Alang enable a ship to be beached right at the shore during high tide and when the tide recedes the ship stands on dry beach.”*

11. The notion that the intertidal zone stays dry for the length of time it takes to dismantle a ship is false, and we all have seen the films and photographs to prove that work to break ships takes place for many hours and days of the process submerged in water or upon wet sand. Indeed the long trains of workers walking deep in wet sands often submerged to their waists, hoisting cables to attach to cut sections for them to be winched to higher ground are among the most common and indelible images of beach shipbreaking. The fact is that in India, Bangladesh and in Pakistan the work takes place in wet sand and water during most of the initial section cutting and winching phase.

12. *“There is a layer of impervious hard rock just beneath the sand and this prevents rainwater and even seawater from seeping into the sub-surface. Thus the danger of ground-water contamination is ruled out.*

13. *Under the beaching method, the most significant issue is that during the entire process of ship breaking, from beginning to the end, no water enters into the ship at any stage. This also means that none of the contaminants from the ship can escape from the ship to the surrounding water.”*

14. The idea that somehow contamination of water is “ruled out” because of an alleged “layer of impervious hard rock” just beneath the sand, is incorrect. Rock rarely proves to be an effective barrier to groundwater contamination, and in any event the contamination of surface water is obvious and immediate in the intertidal zone.

15. The statement that “no water enters into the ship at any stage from beginning to end,” is also incorrect and misleading. First, there is no guarantee that an aged ship, run aground on the beach will be completely water tight. Second, the ship is cut vertically in the water, and sections are dropped into the tide, there being no possibility for cranes to remove the sections until the sections themselves are winched closer to hard surface areas where cranes can operate. Thus the water readily enters the cut sections of the ship as they are allowed to fall into the sea, many of which can be contaminated with oils, PCB contaminated materials, etc. Finally, it is well known that ship contaminants are on the exterior and decks of the ships and thus peeling and eroding paints will absolutely contaminate the surrounding water and beach. This is all the more likely to take place in a method where the ships hull and sections of the ship are abraded against the sand as it is run aground or when the very heavy sections are winched and dragged up the beach.

16. *“A comparative study has been initiated between the beaching method and the dry-dock method through life-cycle assessment at the Indian Institute of Technology, Mumbai. The study involves the estimation of the environmental footprint of each method.*

17. *In the preliminary analyses of the beaching method and of the dry-dock method of ship recycling based on life-cycle approach, it could be clearly seen that the capability of the beaching method practised at Alang to recycle the, so called, “wastes” is far superior than the dry-dock method as followed elsewhere.”*

18. It appears that the study that India claims will compare the life-cycles of various ship recycling methods is not as yet complete and when it is complete it will certainly demand peer review and analysis. However, a study that fails to take into account the impacts on the workers lives and health and safety, lacking as they will the ability to be aided by the use heavy equipment, cranes and emergency vehicles in the intertidal zone, is a study that will be fatally flawed. If the “environmental footprint” fails to take into account the loss of life and limb to the workers by labouring without equipment and hard-standing docks and piers, it will be seriously flawed and inappropriate.

19. But as the study in question is not even complete and yet appears to be the basis for the assertions made in this intervention it is impossible to critique its validity. Beyond human impacts, it will be most revealing to see how the study likewise quantifies the externalities involved in contaminating a beach and rendering it a point source for pollution of the adjacent coast, its impacts on fisheries, when persistent organic and heavy metal pollutants enter the food chain.

20. *“At Alang, where the beaching method is followed, there exists a system to recycle not only the scrap steel plates and steel sections, but also to reuse all items of furniture, machinery, equipment, cables and various other materials. Hence ‘recycling’ is done in the complete sense of the word.”*

21. Of course recycling and re-using as much equipment as possible is laudable, but clearly this can be accomplished in any form of ship dismantling on any platform.

22. *“Apart from this, the infrastructure that is required for practising the dry-dock method which utilizes items like cement, concrete, steel etc required to construct docks and also the power supply required to operate them, add to carbon footprint of the dry-dock method.”*

23. This statement in our view is tantamount to saying that building a hospital involves greater environmental costs than conducting surgery in an open field where the environmental impacts are minimal, and therefore hospital construction is inferior to a society without hospitals.

24. *“The wastes that fall outside the ship’s envelope in the ship recycling yard during the dismantling of ships remain the same in quality and quantity irrespective of the dismantling method followed.”*

25. This is not actually correct. In the intertidal zone the eroded and peeling toxic paints, and oily residues are quickly washed out to sea or enter into the sand immediately. They are subject to the push and pull of the tides when the ship and cut sections are flooded by the sea during the cutting process. There is, in these instances no opportunity to retrieve contaminants. Further the methods involving running a ship aground and dragging sections up the beach creates far greater opportunity to abrade these toxic paints or breach the hull or scatter contaminants from cut sections, then do those methodologies that allow the ship to remain quietly floating while using cranes to lift sections straight to concreted impermeable floored and bermed surfaces. Certainly it is possible in the floating method for paint residues and cutting slags to fall into the water. However, the difference is first that in the floating method there is little current or eroding action of dragging and winching sections and the hull up the beach which will surely dislodge hazardous paint particles and peel. Second, any particles that fall in calm dockside water can be removed from the sediment in regular dredgings. This floating method is little more dangerous to the environment than operating a dockside ship maintenance operation. And of course drydock operations have almost full containment from contamination of the environment.

26. *“In order to pronounce a particular method of ship recycling as environmentally friendly, an exhaustive study of the environmental impact of each individual method has to be carried out and only then one can conclude accurately or remark on any particular method.”*

27. Finally, we are provided a statement in this submission which is completely accurate. It is quite obvious that when all of the externalities are afforded their true cost accounting, and loss of life and limb is factored into the equation, the beaching method utterly fails the “triple bottom line” of social, environmental and economic responsibility.

28. *“Furthermore, the quarters who are criticizing the beaching method, perhaps have inadequate exposure to recycling a large number of different types of ships. It may not be therefore justifiable that such organizations conclude that this particular method of ship recycling should be condemned as environmentally unsafe and unacceptable.”*

29. Concerns for the beaching method are in fact being raised in many quarters including among ship recyclers, certification societies, labour activists, occupational health and safety experts, etc. Environmental and worker safety competencies have been found lacking within the shipbreaking industry, the lack of which has driven the necessity of the Convention in question.

30. *“It is important to recognize that hazardous solid waste, non-hazardous solid waste, wastewater and other liquid wastes as well as waste gases and materials would be generated irrespective of the method of ship breaking.”*

31. Everyone agrees that ships contain hazardous wastes. The question is how best to manage such wastes. A decision to manage hazardous wastes in an intertidal zone that is often submerged and subject to buffeting winds and currents is completely irresponsible. We know of no instance where such operations would be permitted in developed countries. The science-based hazardous waste management facility siting laws, the occupational health and safety laws, and the coastal zone management laws in such countries would absolutely forbid such practices.

32. *“In fact, in the beaching method, with proper training and precautions, there are reduced chances of accidents and, furthermore, there is the advantage of direct access from the breaking site to the ship for handling any emergency.”*

33. This statement is misleading to the point of being dangerous. It is well known that the hazards involved in entering and using flaming cutting torches on ships when they are in a wet and sandy environment and thus lacking the ability to bring ambulances and fire fighting equipment alongside, has led and will continue to lead to more deaths from accidents. Further, the lack of cranes to be able to remove persons and bring stretchers and first-aid equipment quickly onto a ship creates even further risk. And finally, the cutting by torches of huge ship sections without being able to hold them in place from falling and shifting by utilizing cranes, creates an especially dangerous environment where workers have been crushed and have actually plummeted to their deaths when the sections fall into the sea or roll and shift as they are cut.

34. *“When the ship is firmly sitting on the beach, the work is carried out on firm ground and there is no movement of the ship as in the floating method, where the ship can suddenly list or trim, when a large weight of material is cut or removed. This makes the operation unsafe. In the beaching method, the entire ship is finally pulled into dry-ground and none of the cuttings drop into the water. The area of dry beach around the ship can be maintained clean and hence there can be no chance of pollution of the beach. On the contrary, in the floating method, there are chances of hazardous materials falling into the water surrounding the floating ship and it is almost impossible to cut the bottom of the floating ship without polluting the surrounding water.”*

For larger ships, in the floating method, it is also very difficult to lift the entire remaining bottom to a dry area for breaking them to smaller pieces for disposal.”

35. Again, the statements above are simply untrue and dangerous. The submission purports to argue that lifting weighty sections off of a ship by crane is more hazardous than letting them be cut by hand and fall with gravity in an unpredictable fashion. That is simply not credible. Further the statement that a weighty ship hull can be pulled onto dry land is only true when the hull has been reduced to almost nothing. Most of the cutting of a ship takes place while the ship hull sits in the intertidal wet zone. In the floating method the final “canoe” of the floating hull can be lifted by cranes out of the water. In slipside methods it can be winched up concrete impermeable ramps in calm waters where any contamination can be contained and prevented from flowing back to the water by the use of collection troughs. These methodologies (slipside and dockside and drydock platforms) are hardly new and already have a proven track record of very little contamination of the environment with a minimum of serious accidents.

36. *“Continuous environmental monitoring is done by the Gujarat Pollution Control Board at Alang, State of Gujarat, India, for various environmental parameters. In the light of the order of the Honourable Supreme Court of India, various actions pertaining to the safety and health of workers as well as environmental pollution control and preventive measures have already been instituted.”*

37. If the situation in Alang is as reported, then we would expect an independent scientific survey team, civil society groups, and independent journalists would be allowed to conduct surveys there. Rather only carefully controlled tours are allowed, and journalists, civil society organizations and scientists are forbidden from entering the Alang shipbreaking area.

38. *“The IMO’s International Convention for the Safe and Environmentally Sound Recycling of Ships is indeed a most welcome step since it has provided, for the first time, an international convention that addresses and hopefully systematizes all the operations, so that health and safety of workers and prevention of pollution of the environment, both, at sea and ashore can be ensured and verified. It is not out of place to remind the international community at IMO that it is India which spearheaded the thrust from the early stages in the IMO for formulating this Convention on ship recycling and which is now turning into reality.”*

39. We will not comment on India’s role in bringing global awareness to the shipbreaking crisis. We will state however that the IMO effort will lack all credibility if it fails within the new Convention to recognise the obvious faults inherent in the beaching method – the faults that the Basel Convention Parties and their technical experts clearly stated in their technical guideline:

40. *“...the level of mechanisation between the different types varies considerably. In the case of beaching facilities, there is limited or no use of heavy lift cranes and specialised equipment; the work is in effect carried out by hand. There are also considerable variations in level of containment and methods of handling the waste streams. In general terms it can be assumed that beach facilities represent the lowest potential for ensuring proper containment whilst dry dock facilities represent the highest.”* – From Basel Technical Guidelines.

Conclusion

41. Submission SR/CONF/36 fails to defend the practice of ship demolition on beaches. In fact, beach breaking operations are a fatally flawed and dangerous waste management technology that is best relegated to the history books about the pre-industrial age. The beaching method only exists because nation states and industrial leaders lack the courage of conviction to demand cost

internalization and a refusal to continue to exploit the environment and the health of labourers.

42. Further, the IMO position of declaring that it is “method neutral” is in reality “fact deficient”. Indeed in any other matter, the IMO is quite prescriptive about how pollution is to be contained from ships, as in the numerous MARPOL regulations. There, the IMO is far from “method neutral”. The IMO has banned ocean dumping of industrial wastes. It has banned the use of TBT paints etc. And yet it intends to be “neutral” about a methodology that ensures that Regulation 19 of the draft Convention (Prevention of Adverse Effects to Human Health and the Environment) will be severely compromised at the outset; neutral about a method that is known to cause the deaths of many workers every year and continues to treat ocean beaches as an industrial junkyard. It is time the IMO delegates demonstrate the courage and leadership to state the obvious, demand proper technologies of this century and get – “off the beach.”

Action requested of the Conference

43. The Conference is urged to consider the matters raised above and to strongly support the proposal made in SR/CONF/14 to amend the text of the Draft Convention to prohibit the beaching method for ship recycling.