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COMMISSION STAFF WORKING DOCUMENT

EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT

Accompanying the document

**Proposal for a
REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

on ship recycling

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1. PROBLEM DEFINITION

1. The Waste Shipment Regulation¹ implements at European level the requirements of the Basel Convention on the control of transboundary movements of hazardous wastes and their disposal. It also implements the provision of an Amendment to the Convention (the so-called ‘Ban Amendment’) which prohibits the export of hazardous waste outside the OECD. This Amendment has not yet entered into force at international level due to insufficient ratification.
2. According to this legislation, EU-flagged ships going for dismantling constitute hazardous waste (since they contain hazardous substances) and can only be dismantled within the OECD. This legislation is almost systematically circumvented. In 2009, more than 90 % of EU-flagged ships were indeed dismantled outside the OECD, mostly in South Asia (India, Pakistan and Bangladesh) through the so-called ‘beaching’ method and with significant environmental and health impacts.
3. This widespread non-compliance is firstly linked with the lack of recycling capacity available within the OECD in particular for the largest ships. The existing capacity at European level is used for the dismantling of small ships and governmental ships which do not come under the scope of the Hong Kong Convention. Similarly to shipbuilding, ship dismantling has moved during the last few decades from European countries to non-OECD countries for economic reasons. As a result, the option of developing additional capacity in Europe has not been economically feasible.
4. Secondly, the current situation of the ship recycling market is characterised by fierce and unfair competition between the major recycling states Bangladesh, India and (to a lesser extent) Pakistan. Other competitors with higher technical standards are only able to occupy market niches for special types of ships like small ships and government vessels including warships (EU and Turkey) or the fleet of committed shipowners (Turkey and China).

¹ Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste.

5. Finally, the current legislation is not adapted to the specificities of ships. Identifying when ships turn into waste is indeed difficult. In order to apply the current legislation and, in particular, the ban on exporting end of life ships outside the OECD, Member States would have to make an effort on enforcement which would be disproportionate and inefficient taking into account the lack of recycling capacity within the OECD as well as the legal possibility for any ship to change its flag.
6. The situation is likely to worsen since large numbers of ships are expected to be sent for dismantling in the coming years as a result of an overcapacity of the world fleet which is estimated to remain for at least 5 to 10 years. In addition, the coming peak in ship recycling around the phasing-out date for single-hull tankers (2015) is expected to essentially benefit the most sub-standard facilities.
7. In order to improve the situation a specific Convention has been developed by the International Maritime Organization. The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships was adopted in 2009 but will need to be ratified by the major flag and recycling states in order to enter into force and start producing effects.
8. If the Hong Kong Convention does not enter into force and if the European legislation is not modified, it is highly probable that the current market situation will persist. A peak in dismantling activity is bound to lead to a resurgence of lethal accidents and occupational diseases, as the new staff will be recruited from among the poorest and usually inexperienced rural labourers.

2. OBJECTIVES OF THE EU INITIATIVE

9. The general objective of developing a Ship Recycling Regulation is to reduce significantly and in a sustainable way by 2020 the negative impacts of the recycling of EU-flagged ships, especially in South Asia, on human health and the environment, without creating unnecessary economic burdens, by facilitating the entry into force of the Hong Kong Convention. The specific objectives are to:

SO1: reduce the human health and environmental impacts by ensuring that EU-flagged ships are dismantled only in safe and environmentally sound facilities worldwide,

SO2: ensure the availability of sufficient and economically accessible sound and safe recycling capacity to dismantle EU-flagged ships,

SO3: strengthen the incentives to comply with the European legislation.

3. POLICY OPTIONS

10. The first possible option (the ‘baseline option’) would consist in keeping the current legislation (Waste Shipment Regulation) unchanged. Member States would ratify and implement the Hong Kong Convention in their domestic legislation. They would however continue to be prohibited from exporting large commercial EU-flagged ships outside the OECD for recycling even if, in practice, a large proportion of these ships would continue to be recycled in non-OECD countries. It is not expected that

Member States would significantly improve their enforcement of the legislation as the implementation of the Ban Amendment would require significant efforts and would be ineffective (major reflagging to non-EU flags can be expected as a result of the lack of recycling capacity within the OECD).

11. The second option (B) would consist of including in the Waste Shipment Regulation some requirements of the Hong Kong Convention. These requirements would apply to recycling facilities located in the EU and in the OECD since the dismantling of large commercial EU-flagged ships outside the OECD would continue to be prohibited. Member States would ratify and implement this Convention in their domestic legislation.
12. The third option (C) would consist in excluding the ships covered by the Hong Kong Convention (large commercial seagoing vessels) from European legislation. These ships would instead be addressed only by the domestic legislation of Member States possibly based on the Hong Kong Convention's regime.
13. A fourth option (D) would consist in covering the ships under the Hong Kong Convention (large commercial seagoing vessels) by a new ad-hoc Regulation. This Regulation would cover the whole life cycle of EU-flagged ships, implement early the requirements of the Hong Kong Convention and, as allowed by the Convention, include more stringent environmental criteria for ship recycling facilities. EU Member States would be informed in writing and in due time of the shipowner's intention to send a ship for recycling. This requirement as well as the introduction of sanctions, which would be at least equivalent to the ones applicable under the current legislation, will ensure compliance with the legislation. While it is difficult to expect the current 'beaching' facilities to be able to meet these requirements, it is possible that upgraded facilities might be able to fulfil these criteria in the future. In order to avoid confusion, overlaps and administrative burden, ships covered by this new legislation would no longer be covered by the Waste Shipment Regulation.
14. A final option would consist in complementing option D with specific elements:
 - (1) Option E1 would consist in addressing also government vessels, including navy vessels, in the new Regulation transposing the Hong Kong Convention,
 - (2) Option E2 would require EU-flagged ships to be treated in facilities providing a level of protection of health and of the environment equivalent to EU facilities,
 - (3) Finally, option E3 would consist in allowing the export of EU-flagged ships only to a list of third party audited and certified facilities.

4. ASSESSMENT OF IMPACTS

15. As recommended by the Impact Assessment guidelines, the assessment has focused only on the additional impacts of the other options compared to the baseline scenario. Quantitative data are provided in the table below.

16. From an environmental perspective, the different scenarios will have the same impacts regarding generation of hazardous and non-hazardous waste as well as on CO₂ emissions except for option E1². The options would however have different impacts regarding the percentage of hazardous waste which would be managed in an environmentally sound manner. Options C and E1 have a negative impact, options D and E2 a positive one and option B the same impact as the baseline scenario.
17. Option B would have similar social impacts³ compared to the baseline scenario. Option C would have negative impacts (higher social costs) in the medium and the short term. Option E1 would have negative impacts in the short, medium and long term. Option D would have positive impacts in the short term only, while option E2 would have significant positive impacts in the short, medium and long term.
18. From an economic perspective, the implementation of the Hong Kong Convention will entail additional costs for shipowners (reduced price offered for their ships by upgraded recycling facilities and administrative costs) and for Member States (administrative costs). Options B, D and E2 would anticipate the application of the Hong Kong Convention compared to the baseline scenario and would therefore entail additional costs for EU shipowners and Member States in the short and medium term. They would however have no additional impacts compared with the baseline scenario from 2025 onwards. In addition, option B would entail additional administrative costs for Member States regarding control, inspection and enforcement in the short, medium and long term. Option C would have positive impacts compared to the baseline scenario for shipowners and Member States in the short and medium term. Option E1 would have positive impacts in the short, medium and long term.
19. Option B is expected to create problems of compliance since it would not resolve the problem of the lack of legally accessible recycling capacity and would create confusion by mixing two sets of requirements (from the Basel and Hong Kong Conventions). No problem of compliance is expected under option C (all facilities would be legally accessible) nor option E1. Option D would have a positive impact because the proposed legislation would be adapted to the specificities of ships and sufficient recycling capacity would be legally accessible at a slightly reduced price. In addition, specific sanctions will be introduced in order to address the possible remaining cases of non-compliance. For the same reasons, option E2 is expected to lead to a higher level of compliance compared with the baseline option. However, more non-compliance can be expected compared to option D since the revenues of shipowners would be more negatively affected and since the available recycling capacity might be reduced as a result of stronger requirements for facilities. Option E3 would provide a tool for checking that the facilities to which EU-flagged vessels are sent for recycling comply with the applicable standards and rules on safe and environmentally sound recycling of ships. It would however present a lower level of compliance than option D because of the possible reluctance of third countries due to sovereignty issues.

² Under option E1, governmental ships (including navy ships) currently recycled within the OECD would be allowed to be sent for recycling in Asia thus leading to higher CO₂ emissions during their final voyage.

³ Fatal and non-fatal accidents for adult and child workers.

20. Several stakeholders have pointed out that the co-existence of two sets of legal requirements (resulting from the Basel and Hong Kong Conventions) would be very confusing and administratively burdensome. Option B would therefore have negative impacts on the simplification of the existing legislation. Large EU-flagged ships would no longer be covered by European legislation under option C. This would have a positive impact on the simplification of legislation in the short term which might be more limited in the long term if the EU Member States have diverging national legislation to implement the Hong Kong Convention. Options D, E2 and E3 would have a positive impact since they would replace the current legislation by a new instrument better adapted to the specificities of ships.
21. No option is expected to unduly affect small and medium sized enterprises since the main businesses concerned (EU shipowners) are rarely small and medium sized enterprises.
22. The costs linked to the implementation of the Hong Kong Convention (administrative costs during the operating life and reduced selling prices at the time of recycling) over the lifetime of ships are negligible and no impact is therefore expected on consumers in the baseline and in the other scenarios.
23. In principle, none of the options envisaged in the impact assessment report has a direct impact on the EU budget.

The quantified additional impacts of the different scenarios compared to the baseline scenario are summarised in the table below.

Impacts		Environmental	Social								Economic		
		Hazardous waste treated in an ESM manner ⁴	Workload EU ⁵	Workload (protected workers) ⁵	Workload (not protected workers) ⁵	Workload (not protected child workers) ⁵	Fatal accidents (adults) ⁶	Non fatal accidents (adults) ⁶	Fatal accidents (children) ⁶	Non fatal accidents (children) ⁶	Social costs ⁷	Revenues ship owners ⁷	Administrative costs (Member States) ⁷
Short term (2015)	B	0%	0	0	0	0	0	0	0	0	0	-1 952 011	378 604
	C	-6%	-5	189	468	159	1	184	0	29	969 792	12 540 267	0
	D	23%	0	1 423	-2 246	-764	-2	-473	-1	-133	-3 372 237	-22 019 545	356 430
	E2	30%	0	-938	-2 385	-811	-4	-1 105	-1	-148	-5 401 791	-66 349 943	356 430
	E3	23%	0	1 423	-2 246	-764	-2	-473	-1	-133	-3 372 237	-22 221 755	356 430
Medium term (2020)	B	0%	0	0	0	0	0	0	0	0	0	-112 036 486	640 117
	C	-20%	-6	-2 497	3 244	1 103	1 103	3	633	1	5 993 494	31 192 613	-436 341
	D	0%	0	0	0	0	0	0	0	0	0	-112 036 486	617 943
	E2	16%	0	-3 778	0	0	0	-2	-833	0	-2 820 429	-189 916 941	617 943
	E3	0%	0	0	0	0	0	0	0	0	0	-112 266 395	617 943
Long term (2025)	B	0%	0	0	0	0	0	0	0	0	0	149 062 972	22 174
	C	0%	0	0	0	0	0	0	0	0	0	159 369 991	-879 612
	D	0%	0	0	0	0	0	0	0	0	0	149 062 972	0
	E2	16%	0	-3 428	0	0	-2	-756	0	0	-3 114 124	63 072 738	0
	E3	0%	0	0	0	0	0	0	0	0	0	148 854 325	0

⁴ Percentage of waste generated by ship recycling treated in an environmentally sound manner (ESM) for each option compared to the baseline option. .

⁵ Expressed in man years.

⁶ Number of persons.

⁷ Expressed in €

5. COMPARISON OF OPTIONS

24. The policy packages have been assessed against the criteria of effectiveness, efficiency and coherence.
25. From an effectiveness point of view, options D, E2 and E3 would seem the most attractive. Indeed, they offer the highest potential level of achievement of all specific goals, while options B and E1 would have globally negative effectiveness and option C would only have positive effectiveness regarding the Specific Objectives 2 and 3.
26. Option B would globally have negative efficiency since it would decrease the revenues of shipowners, increase the administrative costs for EU Member States and would not solve the current problems of compliance. Option C would also have negative efficiency: its positive impacts on the revenues of shipowners and on the administrative costs for EU Member States will be offset by significant negative environmental and social costs in the short and medium term. Option E1 would have globally negative effectiveness with positive economic impacts for EU Member States but negative environmental and social impacts. Options D and E3 contain effective measures accompanied by limited implementation and administrative costs, which contributes efficiently to all specific objectives. Option D2 would have globally positive efficiency.
27. Options D, E2 and E3 would have positive efficiency. However, option E2 would entail very substantial costs for shipowners which will only be partially offset by the environmental and health benefits.
28. From an effectiveness point of view, option D seems the most attractive. Indeed, it offers the highest potential level of achievement of all specific goals and a higher level of compliance than option E3.
29. Moreover, as shown by the analysis of coherence, even if option D presents some trade-offs between the positive environmental and social impacts and the negative economic impacts, the trade-offs are lower than for option E2. The loss of revenues for shipowners under option D (resulting from lower prices offered by improved facilities) would indeed be offset by gains in terms of environmental protection and of social impacts. This option addresses all the current problems and introduces new requirements to ensure compliance before recycling (obligation to inform the flag state in writing) and after (sanctions if ships are not dismantled in authorised facilities). It will therefore increase compliance. In terms of coherence, option D therefore ranks highest. In view of the above, option D is the recommended option.
30. The table below summarises the comparison between the options in terms of effectiveness, efficiency and coherence.

Option	B	C	D	E1	E2	E3
Effectiveness						

• SO1	negative	negative	positive in the short term and neutral in the long term	negative	positive	positive
• SO2	negative	very positive	very positive	neutral	positive	very positive
• SO3	negative	positive	positive	slightly negative	positive	positive
Efficiency	negative	negative	very positive	negative	positive	very positive
Coherence	no	no	yes with limited trade off	no	yes but with important trade off and risk of non-compliance	yes with limited trade off but with risks of non-compliance
Conclusion			Recommended option			

6. MONITORING AND EVALUATION

31. Given the existing compliance problems, progress should be monitored to check the implementation and effectiveness of the EU legislation and its contribution to the objectives. It is proposed to compare each year the list of ships which were considered as likely to go for recycling the year before and the list of ships recycled in EU audited and certified facilities.
32. Indicators of the progress in this context could be in particular:
- the number of ship recycling facilities that are fulfilling the criteria of the Regulation;
 - the number and percentage of EU-flagged ships dismantled in such facilities compared to the worldwide number and percentage;
 - the state of ratification of the Hong Kong Convention by the major flag and recycling states;
 - data on the type of employment in ship recycling facilities (typology of employment, accidents, occupational diseases) as well as data on the environmental pollution associated with ship recycling, as available.

33. Taking these indicators into account, it is necessary to review the EU policy concerning ship recycling on a regular basis and to submit regular implementation/progress reports to the European Parliament and the Council.
34. Should compliance problems continue, further action could be taken at EU level like the setting up of an EU ship dismantling fund.