

Cradle to Graving-Dock?: The Promises and Limits of Modern Shipbreaking Reform

Rebecca Prentiss Pskowski¹

Table of Contents

I. INTRODUCTION: THE STRANGE CASE OF THE RONGDHONU, EX RAINBOW WARRIOR II	2
II. DEVELOPMENT OF A TWENTY-FIRST CENTURY SCRAP MARKET	5
III. THE FLAGGING PROBLEM	9
A. Flags of Convenience	9
B. End-of-Life Flags	10
IV. LEGAL REGIMES	11
A. The Basel Convention	11
B. The Basel Ban Amendment	13
C. The ILO Guidelines on Shipbreaking	14
D. The Hong Kong Convention	14
E. The European Waste Shipping Regulation	16
F. The European Ship Recycling Regulation	17
V. FIVE APPROACHES TO THE SHIPBREAKING PUZZLE	19
A. Port State Control: The <i>Harrier</i>	20
B. Prosecution by the Importing State: The <i>North Sea Producer</i>	22
C. Piercing the Flag State Veil: The <i>Seatrade Case</i>	25
D. Direct Tort Actions: The <i>Eurus London</i>	31
E. Corporate Responsibility: An Extralegal Solution?	33
VI. CONCLUSIONS	36

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Cradle, [] the timber frame which is constructed round the hull of a ship while she is on the launching ways in the course of being built. When launched, the cradle slides down the ways with the ship.²

Graving Dock, . . . The term originates from the old practice of graving a ship's bottom, *i.e.*, burning off the accumulated weed and paying it over with tar. . . . Today, a graving dock is synonymous with a dry-dock.³

From the perspective of international regulation, the aim should be the setting of, implementation of and controlled compliance with high international standards for the entire life cycle of ships, in other words, from “cradle to grave” or from “makers to breakers.”⁴

I. INTRODUCTION: THE STRANGE CASE OF THE *RONGDHONU*, EX *RAINBOW WARRIOR II*

Greenpeace, the international environmental organization, has been from its inception a seagoing outfit.⁵ Its vessels' exploits include protests of nuclear tests, arctic drilling, and whaling.⁶ In the late 1990s, Greenpeace activists began documenting the occupational and environmental conditions of shipbreaking yards in Asia.⁷ In Alang, India, at open-air beaches where massive cargo vessels were disassembled with hand-held acetylene torches, Greenpeace representatives saw workers removing asbestos with their bare hands and toxic materials dumped into the sea or on nearby agricultural lands.⁸ Greenpeace began targeting European shipowners who sent their decommissioned vessels to Indian beaches, where the ships were scrapped under environmental and labor conditions that would never be tolerated in a European country.⁹ In 2003, the three-masted schooner *Rainbow Warrior II*, Greenpeace's flagship, anchored off Alang beach, in protest.¹⁰

² OXFORD COMPANION TO SHIPS & THE SEA 211 (Peter Kemp, ed. 1976).

³ *Id.* at 351

⁴ Nele Matz-Lück, *Safe and Sound Scrapping of “Rusty Buckets”?: The 2009 Hong Kong Ship Recycling Convention*, 19 REV. EUR. COMMUNITY & INT'L ENVTL. L. 95, 96 (2010).

⁵ The organization's name was coined to christen a boat, which precursor organization Don't Make a Wave intended to sail in protest of nuclear tests in Alaska. See FRANK ZELKO, MAKE IT A GREEN PEACE!: THE RISE OF COUNTERCULTURAL ENVIRONMENTALISM 69-70 (2013).

⁶ *Id.*

⁷ Patrizia Heidegger, *The Role of the NGO Shipbreaking Platform for Making Ship Recycling Clean and Safe*, INT'L CONFERENCE ON SHIP RECYCLING, WORLD MAR. U., Apr. 8, 2013, https://issuu.com/worldmaritimeuniversity/docs/heidegger_-_the_role_of_the_ngo_shi. See also WILLIAM LANGEWIESCHE, THE OUTLAW SEA 212-16 (2004) (describing origins of Greenpeace shipbreaking campaign); Peter Rousmaniere & Nikhil Raj, *Shipbreaking in the Developing World: Problems and Prospects*, 13 INT'L J. OCCUPATIONAL & ENVTL. HEALTH 359 (2007).

⁸ Heidegger, *supra* note 7.

⁹ *Id.*; LANGEWIESCHE, *supra* note 7, at 215-16 (describing targeting of shipowner P&O Nedlloyd by Greenpeace).

¹⁰ Matthew McClearn, *Dark Voyage*, CANADIAN BUS., Oct. 10, 2005, at 64. See also GREENPEACE, PLAYING HIDE AND SEEK: HOW THE SHIPPING INDUSTRY, PROTECTED BY FLAGS OF CONVENIENCE, DUMPS TOXIC WASTE ON SHIPBREAKING BEACHES 22 (Dec. 2003) (“The SV [] *Rainbow Warrior* of Greenpeace has been in Indian Waters and surroundings from 7 November 2003 until the beginning of December. Shipbreaking was one of the core issues.

The fledgling movement to clean up shipbreaking was galvanized by the case of the *Clemenceau*, a French aircraft carrier decommissioned in 1997. France's efforts to scrap the vessel, containing some 130 tons of asbestos, resulted in an international legal and public relations battle. After Turkey and Greece refused import, an attempted export to India was aborted at the last minute, the vessel called back to France, and ultimately sent to the United Kingdom for responsible disposal.¹¹ The activists who had fought to keep the *Clemenceau* from the beaching yards of the Subcontinent, Greenpeace chief among them, formally joined forces in 2005, incorporating as the NGO Shipbreaking Platform, united to fight for responsible ship recycling practices, inimically opposed to the practice of beaching.¹²

It was therefore somewhat of a surprise when, on a high tide in November, 2018, a certain three-masted vessel was driven onto the beach of Chattogram, Bangladesh, to be cut apart on the intertidal zone.¹³

The *Rongdhonu*, ex *Rainbow Warrior II*, had since 2013 sailed as a charity hospital ship, providing health care in remote coastal areas of the Bay of Bengal.¹⁴ Before her reincarnation as a floating hospital, the *Rainbow Warrior II* sailed as the Greenpeace flagship for 22 years.¹⁵ When Greenpeace retired her in 2011 and donated her to Friendship NGO for re-commissioning as a hospital ship, the transfer agreement provided Greenpeace a veto over any demolition plan, requiring the *Rhongdhou's* former owner to approve the method of her eventual disposal.

And yet, there the anti-beaching campaign ship was, in November, 2018, on the beach in Chattogram, for every satellite that passed overhead to see. In a press release, republished on the Maritime Executive news website, cash buyer GMS, a major player in the shipbreaking markets of the Subcontinent, publicly congratulated Greenpeace for reconsidering its long-held opposition to beaching: "GMS is pleased to see [Greenpeace] has finally accepted the fact that responsible recycling in the Subcontinent is the most prudent option for shipowners worldwide... GMS congratulates both Greenpeace and Friendship for actively participating in the green transformation of the ship recycling industry in Bangladesh."¹⁶

The next day, November 15, Greenpeace published a *mea culpa* on its website:

When we transferred the ship to Friendship in 2011 we retained the right of veto over any final disposal plan ... We should have consulted our partners in the NGO Shipbreaking Platform ... we did not. No excuse ... Upon realising our mistake, we began work to try and find an alternative way for the ship to be decommissioned, but this was not possible. The ship was beached and readied to be cut up ... Greenpeace does not believe that breaking ships apart on tidal beaches is green. Going

Although it has been difficult to work, a lot of information was gathered on the actual practise of the arrival and arrived end-of-life ships in India as well as in Bangladesh.”), available at <http://storage.googleapis.com/planet4-netherlands-stateless/2018/06/playing-hide-and-peek.pdf>.

¹¹ Heidegger, *supra* note 7. See also MICHAEL GALLEY, SHIPBREAKING: HAZARDS AND LIABILITIES 128-136 (2014) (case study of the *Clemenceau*); TONY GEORGE PUTHUCHERRIL, FROM SHIPBREAKING TO SUSTAINABLE SHIP RECYCLING 81-86 (2010) (same).

¹² Heidegger, *supra* note 7.

¹³ On April 2, 2018, the government of Bangladesh officially changed the English spelling of this port city from the more familiar “Chittagong” to “Chattogram.” Mahadi Al Hasnat, *Is Chittagong University Chattogram University Now?*, DHAKA TRIB., Apr. 5, 2018, <https://www.dhakatribune.com/bangladesh/education/2018/04/05/chittagong-university-chattogram-university-now/>. This article will use the contemporary spelling, but will not alter quotes which used the prior spelling.

¹⁴ Rongdhonu Hospital Ship, FRIENDSHIP NGO, <https://friendship.ngo/rongdhonu-friendship-hospital-ship/>.

¹⁵ S.Z. Al-Mahmood, *Greenpeace's Rainbow Warrior Begins Refit as Bangladesh Hospital Ship*, GUARDIAN, Aug. 29, 2011, <https://www.theguardian.com/environment/2011/aug/29/greenpeace-rainbow-warrior-bangladesh-hospital; Rainbow Warrior II Retires, Finds Second Life as Floating Hospital>, GREENPEACE, Aug. 16, 2011, <http://www.greenpeace.org/eastasia/news/stories/about/2011/Greenpeace-Rainbow-Warrior-II-retires/>.

¹⁶ *Ex-Rainbow Warrior II Beached in Chittagong for Recycling*, MAR. EXECUTIVE, Nov. 14, 2018, <https://www.maritime-executive.com/corporate/ex-rainbow-warrior-ii-beached-in-chittagong-for-recycling>.

forward Greenpeace commits to urgently adopt an end-of-life ship policy, drafted with the help of the Shipbreaking Platform, to help ensure such errors do not occur in future.¹⁷

As it emerged, the mistake came down to a failure of corporate compliance culture.¹⁸ According to Greenpeace Norway, the specialized Greenpeace vessel operations desk approved the Chattogram scrapping plan “without consulting either its own expertise or allies within the NGO Shipbreaking Platform or Basel Action Network.”¹⁹ Mike Townsley, the communications director at Greenpeace International, said the oversight occurred “[b]ecause we did not have a clear shipbreaking policy ... We apparently counted on the collective memory of the shipbreaking campaigns of ten years ago, and we seem to have thought that would suffice to always opt for clean and responsible ship recycling.”²⁰ Greenpeace pledged to develop such a policy.²¹

After the gaffe was revealed, Greenpeace’s efforts to retrieve the *Rongdhonu* from the Chattogram beach were unsuccessful.²² Efforts continue to contain and remediate any negative environmental effects of this unusual breaking project.²³ As of this writing, Greenpeace, probably the most visible and recognizable member of the anti-beaching movement,²⁴ is no longer listed as a member or partner organization of the NGO Shipbreaking Platform.²⁵

The strange fate of the *Rongdhonu* highlights some of the inherent difficulties of enforcing sustainability practices in so-called “reverse supply chains.”²⁶ In the two decades since global public attention was first drawn to the curious and tragic industry that is modern shipbreaking, legal, economic, and policy scholarship on the subject has blossomed.²⁷ The bulk of this work’s analysis will be reserved for

¹⁷ *Decommissioning the Rongdhonu (ex Rainbow Warrior (II))*, GREENPEACE, Nov. 15, 2018, <https://www.greenpeace.org/international/press-release/19341/statement-on-the-decommissioning-of-the-rongdhonu/>.

¹⁸ Gie Goris, *Rainbow Warrior on Shipbreaking Beach in Bangladesh*, MONDIAAL NIEUWS, Dec. 11, 2018, <https://www.mo.be/en/news/rainbow-warrior-shipbreaking-beach-bangladesh>.

¹⁹ Quoted by *id.*

²⁰ Quoted by *id.*

²¹ *Id.*

²² *Id.*; *Decommissioning the Rongdhonu*, *supra* note 17. Greenpeace spokesman Townsley told *Der Spiegel* that the Bangladeshi breakers quoted a \$10 million buyback price, which was forty times the hulk’s value, and any recovery plan would have also incurred the cost of transportation and responsible recycling elsewhere. Nicolai Kwasniewski, *Verschrottung der Rainbow Warrior II: Wo die Umweltliebe von Greenpeace Endet [Scrapping the Rainbow Warrior II: Where Greenpeace’s Environmental Love Ends]*, DER SPIEGEL, Mar. 12, 2019, <https://www.spiegel.de/wirtschaft/rainbow-warrior-ii-wo-die-umweltliebe-von-greenpeace-endet-a-1256754.html>.

²³ Goris, *supra* note 18.

²⁴ Michael Galley, *Shipbreaking—A Convenient Washing of Hands?*, 12 MOUNTBATTEN J. LEGAL STUD. 96, 107 (2008) (in each of five shipbreaking law case studies, “the environmental pressure group Greenpeace has played a major role in raising awareness”); Rousmaniere & Raj, *supra* note 7, at 367; McClearn, *supra* note 10.

²⁵ See *Members & Partners*, NGO SHIPBREAKING PLATFORM, retrieved Feb. 4, 2020, <https://www.shipbreakingplatform.org/about/members-partners/>. *Der Spiegel* reports that NGO Shipbreaking Platform suspended Greenpeace’s membership as a result of the *Rongdhonu* debacle. Kwasniewski, *supra* note 22.

²⁶ “[S]hip-breaking operates as a form of ‘reverse-flow’ value chain of dismantling and re-production. Here, the flow is from developed to less-developed world and from [multinational] shipping company ‘supplier’ to local [less developed country] ‘producer’ and ‘consumer.’” George Cairns, *A Critical Scenario Analysis of End-of-Life Ship Disposal: The “Bottom of the Pyramid” as Opportunity and Graveyard*, 10 CRITICAL PERSP. INT’L BUS. 172, 174 (2014). See also Joshin John et al., *Sustainable Operations in Reverse Supply Chain of Shipbuilding Business: Benefits of Green Practices*, 4 J. INDP’T J. MGMT. & PRODUCTION 563 (2013).

²⁷ See, e.g., George M. Cairns, *Return to Chittagong: Ten Years Since the “Postcard”* 13 CRITICAL PERSP. INT’L BUS. 340, 341-42 (2017) (chronicling the dramatic expansion of business scholarship on the shipbreaking industry over the ten years since 2007). See also George M. Cairns, *Postcard from Chittagong: Wish You Were Here?*, 3 CRITICAL PERSP. INT’L BUS. 266, 267 (2007) (“The business and management literature, most notably that on international business, lacks any reference to ‘ship breaking’ or related terms with reference to Chittagong or Bangladesh—or to India or Pakistan”).

three distinct contemporary efforts to subvert the flagging problem and modernize the shipbreaking industry, to the hopeful mutual benefit of yard workers, the environment, and all of us: the consumers who rely on an efficient and inexpensive global freight market to bring us blue jeans, gasoline, food, and construction materials.

II. DEVELOPMENT OF A TWENTY-FIRST CENTURY SCRAP MARKET

The shipbreaking²⁸ industry was born with the metal hull, in the mid-nineteenth century.²⁹ Initially, the same yards which constructed metal ships handled their deconstruction, in dry docks or at quayside.³⁰ Later, more specialized salvage docks came into use, still in the same developed countries of Europe and North America where the vessels had been built.³¹ In the 1960s and 1970s labor costs and environmental regulations caused a shift to East Asia, where first Japan, then South Korea and Taiwan operated industrial shipyards on a similar industrial scale.³²

The 1980s saw a curious technological regression (or disruption) in the shipbreaking industry. During that decade, new breakers opened shop on the Indian Subcontinent, in India, Pakistan, and Bangladesh.³³ These countries had cheap labor and lax environmental standards, but unlike in the prior geographical shift, from Europe to East Asia, South Asian entrepreneurs did not have the existing industrial infrastructure or upfront capital to disassemble ships in the industrial fashion. Instead, the Subcontinent

²⁸ The term “shipbreaking” is slowly falling out of favor. Formerly, it was used interchangeably with “ship scrapping,” “ship decommissioning,” or “ship demolition,” but today “ship recycling” is increasingly preferred. In an interview first published in 2000, International Chamber of Shipping advisor Brian Parkinson introduced the term to journalist William Langewiesche: “‘We want to know how we can present the ship to the recyclers in the best possible way.’ I complimented him on the word ‘recyclers,’ and he said yes, right, it was rather good, wasn’t it?” LANGEWIESCHE, *supra* note 7, at 217, previously published at *The Shipbreakers*, ATLANTIC, Aug. 2000, at 31. This text will primarily use the term “shipbreaking,” both for simplicity’s sake and to emphasize that the re-branding of the practice as “ship recycling,” can contribute to a “greenwashing” effect, lionizing an industry that, as we shall see, still has far to come to live up to the goal of “sustainable ship recycling.” See Juan Ignacio Alcaide, Emilio Rodríguez-Díaz & Francisco Piniella, *European Policies on Ship Recycling: A Stakeholder Survey*, 81 MARINE POL’Y 262, 266 (2017) (“The current concept of ship recycling does not appear to include the management of toxic waste The scrapping activity is based on recovery of the ship’s metal, and there is no interest in the materials that have no commercial value, which affirms this as a metal recovery industry, not one of recycling.”); Galley, *supra* note 24, at 97 (“Shipbreaking—also known as ship scrapping/wrecking/disposal/dismantling, and increasingly the more benign and anodyne ‘ship recycling’”); Holly H. Hillyer, *The Hard Reality of Breaking Up: The Global Transboundary Movement of Ocean Vessel Demolition and Waste*, 13 VT. J. ENVTL. L. 755, 756-57 (2012) (“in most developing countries, the process is better labeled shipbreaking, since it is strictly the act by which a ship is rendered into its reusable components”). If “ship recycling” was introduced, in part, to euphemistically rebrand “shipbreaking,” there are signs that the rusty taint of industry practices is starting to adhere to the new term, with one recent commentary observing, “Ship recycling is a term which needs rescuing.” Tom Holmer & Stephanie Draper, *A Call for Clarity*, MAR. RISK INT’L, May 14, 2018, <https://www.maritime-risk-intl.com/environment/a-call-for-clarity-129943.htm>.

²⁹ OXFORD COMPANION TO SHIPS & THE SEA, *supra* note 2, at 790-91 (commercial iron construction began circa 1843; steel circa 1860); L. Milton Glisson & Harry L. Sink, *Maritime Shipbreaking: Law and Policy, Part III*, 73 J. TRANSP. L. LOGISTICS & POL’Y, 463, 464 (2006).

³⁰ Glisson and Sink, *supra* note 29, at 464.

³¹ *Id.*

³² *Id.*; PUTHUCHERRIL, *supra* note 11, at 11. For a discussion of the historical role of East Asian shipbreakers, and the light that history sheds on current controversies, see Emmanuel Yujuico, *Demandeur Pays: The EU and Funding Improvements in South Asian Ship Recycling Practices*, 67 TRANSP. RES. PART A 340 (2014). For a journalist’s description of the operation of a quayside shipbreaking yard in Kaohsiung, Tawain, circa 1979, see Jim Shaw, *Getting Rid of Old Ships: The World of Shipbreaking*, PACIFIC MAR., Mar. 1, 2018, <https://www.pacmar.com/story/2018/03/01/features/getting-rid-of-old-ships-the-world-of-shipbreaking/593.html>.

³³ Yujuico, *supra* note 32, at 342.

boasted long, wide tidal flats and robust markets for reclaimed steel and other scrapping byproducts.³⁴ Absent domestic labor and environmental protections, a new method of shipbreaking came to be: an end-of-life vessel was emptied of all cargo and non-essential equipment, and, floating high on a high tide, bobbing far above her load lines, was driven, throttle down, onto the subcontinent's unusually long and shallow tidal mudflats.³⁵ Cutting began immediately, by use of handheld blowtorches, and, as pieces of the behemoth fell away, cables were attached to winch the hulk up the beach, by hand or mechanical power. Almost every aspect of the operation was manual, capital investment to start up was minimal, and, although the work was arduous and treacherous, the labor supply was plentiful.

This new model has been remarkably successful, at least economically speaking. By the mid-1990s India and Bangladesh dominated the world scrapping market, and today more than eighty percent of vessel tonnage is decommissioned by the "beaching" method.³⁶ Turkey and China are the only other two nations with significant scrapping capacity (though, as of the start of 2019, China has banned importation of foreign-flagged vessels for recycling).³⁷

The average ocean-going commercial vessel will have an operational life of twenty-eight years.³⁸ Every year, some 700 vessels are sold on the scrap market.³⁹ In most circumstances, an owner seeking to sell an older vessel will choose to decommission the vessel when the scrap price is higher than the price on the second-hand market.⁴⁰ There are exceptions, where the scrap market may be the only market, such as in the case of the forced retirement of single-hull tanker vessels in the early 2000s, mandated by the International Maritime Organization (IMO) as an oil-spill prevention measure.⁴¹ More recently, the opening of the new, broader Panama Canal caused the second-hand value of Panamax vessels to crater, consigning many otherwise-sound ships to the scrappers after fifteen years' or less sea service.⁴² IMO 2020, the

³⁴ The differential demand for scrap steel is an often-overlooked contributing factor to the high per-ton prices paid by South Asian yards, and the consequent industry preference for South Asian breakers. India, Pakistan, and Bangladesh are rapidly urbanizing nations, with high demand for construction steel inputs, including bars, rods, and corners. *Id.* at 342-43. Structural shipbuilding steel is certified by classification societies, and "[g]enerally, marine quality steel is considered superior compared to those employed in land-based engineering." Kodungallur Sivaprasad & C.G. Nandakumar, *Design for Ship Recycling*, 8 SHIPS & OFFSHORE STRUCTURES 214, 220 (2013). See also NIKOS MIKELIS, *THE RECYCLING OF SHIPS* 9 (2d ed, Oct. 2019). Rerolling mills heat and reshape steel hull plates, but do not heat the steel to its melting point. MIKELIS, *supra*. "Consequently, South Asia's recyclers have the advantage of commanding better prices for flat rerollable steel compared to scrap steel destined for melting. However, in recent years, India's Ministry of Steel has imposed limits on the use of rerolled steel for making bars whose diameter is greater than 8mm and consequently." *Id.* This regulatory development has placed Indian breakers at a competitive disadvantage, compared to yards in Pakistan and Bangladesh. *Id.* Descriptions of rerolling mills in Bangladesh and India can be found in ROLAND BUERK, *BREAKING SHIPS* 136-40 (2006) and LANGEWIESCHE, *supra* note 7, at 221-22.

³⁵ Alang "boasts tides of about 30 feet, enabling breakers to bring ships in close to shore." McClearn, *supra* note 10. BUERK, *supra* note 34, provides an account of the origins and early development of the Bangladeshi beaching yards, including the role of hulks left crippled by the 1971 Liberation War, at 89-100.

³⁶ "674 ocean-going commercial ships and offshore units were sold to the scrap yards in 2019. Of these vessels, 469 large tankers, bulkers, floating platforms, cargo- and passenger ships were broken down on only three beaches in Bangladesh, India and Pakistan, amounting to near 90% of the gross tonnage dismantled globally" Press Release, Platform Publishes List of Ships Dismantled Worldwide in 2019, NGO Shipbreaking Platform, Feb. 4, 2020, <https://www.shipbreakingplatform.org/platform-publishes-list-2019/>.

³⁷ Nikos Mikelis, *Two Roads for Hong Kong Convention to Enter into Force*, MAR. EXECUTIVE, Mar. 31, 2019, <https://www.maritime-executive.com/editorials/two-roads-for-hong-kong-convention-to-enter-into-force>.

³⁸ L. Milton Glisson & Harry L. Sink, *The Environmental Impact of Maritime Shipbreaking*, 73 J. TRANSP. L., LOGISTICS & POL'Y 73, 76 (2006).

³⁹ *Id.*

⁴⁰ Siri Pettersen Strandenes, *Economics of the Markets for Ships*, in *THE HANDBOOK OF MARITIME ECONOMICS AND BUSINESS* (Costas Th. Grammenos, ed., 2d ed. 2010) at 217, 227.

⁴¹ Glisson & Sink, *supra* note 37, at 79. See also BUERK, *supra* note 34, at 99-100 (describing impact of single-hull phase out on Chattogram breaking industry).

⁴² Cairns, *Return to Chittagong*, *supra* note 27, at 343-44 (references omitted).

international regulation which drastically cut permissible sulfur emissions as of January 1, 2020, may cause a similar recycling uptick, as shipowners opt for newer tonnage equipped with scrubbers or powered by LNG.⁴³ A vessel's price on the second-hand market will vary with the conditions of the freight market; if there is excess tonnage, second-hand prices will be low, while if the market is strong and demanding more tonnage, second-hand prices will rise commensurately.⁴⁴ Prices on the scrap market, on the other hand, are affected by world scrap steel prices and shipbreaking yards' capacity.⁴⁵

Shipowners employ brokers to sell a retiring vessel on a dollar per lightship displacement ton basis.⁴⁶ While it is possible to sell directly to a breaking yard, most often the transaction is made through a specialist "cash buyer," who plays an important mercantile role as the intermediary between shipowner and breaking yard.⁴⁷ While cash buyers' market expertise and capitalization may be invaluable to the shipowner, their intermediary purchases also serve to insulate shipowners from possible legal liability or reputational harm for labor and environmental harms caused by a vessel's demolition.⁴⁸ The nominal purchaser of a condemned vessel is often an offshore shell company standing in the shoes of the controlling cash buyer, further insulating the selling shipowner.⁴⁹ The cash buyer may purchase the vessel either on an "As-Is-Where-Is" basis, or on a delivered basis.⁵⁰ The vessel will transit to the breaking facility, most often on the Indian Subcontinent. Vessels may carry cargo for some portion of their final voyage, or may travel light.⁵¹

⁴³ *Older Tonnage Could Be Headed for Scrapping, Ahead of the IMO 2020 Rule*, HELLENIC SHIPPING NEWS, Nov. 22, 2019, <https://www.hellenicshippingnews.com/older-tonnage-could-be-headed-for-scrapping-ahead-of-the-imo-2020-rule/>. "[E]ven i]n the absence [of] scrubber-fitted ships, charterers are looking for the most fuel-efficient designs on offer, with the probability that ageing fuel-guzzling vessels will become early candidates for recycling." Mike Wackett, *Investment in Scrubbers Starting to Pay Off as Owners are Offered "Double" Rates*, LOADSTAR, Jan. 29, 2020, <https://theloadstar.com/investment-in-scrubbers-starting-to-pay-off-as-carriers-are-offered-double-rates/>.

⁴⁴ "[E]arnings, and thus freight levels, have a negative effect on the decision to send a ship to the demolition yards. The higher the freight rates the higher the earnings from ship operation. Thus high freight rates allow even inefficient, aged and technologically obsolete vessels to operate profitably." Thanasis Karlis & Dionysios Polemis, *Ship Demolition Activity: A Monetary Flow Process Approach*, 30 SCI. J. MAR. RES. 128, 129 (2016).

⁴⁵ *Id.* at 129-30; Amir H. Alizadeh & Nikos K. Nomikos, *An Overview of the Dry Bulk Shipping Industry*, in THE HANDBOOK OF MARITIME ECONOMICS AND BUSINESS, *supra* note 40, at 319, 347-48.

⁴⁶ Karlis & Polemis, *supra* note 44, at 129; MIKELIS, *supra* note 34, at 17. *See also* Alizadeh & Nomikos, *supra* note 45, at 346. A vessel's origin may affect the offered price: "[A]s there is no market for Russian equipment ... [Russian] ships are not preferred ... [S]hips constructed in the United States give the highest return in terms of the quality and value of the steel recovered ... Japanese ships are considered to be the cheapest and quickest to break." PUTHUCHERRIL, *supra* note 11, at 32 n. 164.

⁴⁷ Karlis & Polemis, *supra* note 44, at 130. "Unlike a broker, the [c]ash [b]uyer takes legal ownership of the vessel (albeit for a limited time). Cash buyers are involved in some eighty percent of shipbreaking contracts. Juan Ignacio Alcaidea, Francisco Piniella & Emilio Rodríguez-Díaz, *The "Mirror Flags": Ship Registration in Globalised Ship Breaking Industry*, 48 TRANSP. RES. PART D 378, 379 (2016). "Direct sales require a detailed knowledge of the recycling market, and specific information about the recycling country, which the majority of shipowners are unlikely to possess. . . . Selling directly to a recycling facility is therefore likely to be an option only for larger shipping companies, with sufficient in-house capacity to deal with the process. The route therefore taken in the vast majority of sales of end of life ships will be through a cash buyer who will purchase the vessel, either during its final voyage or at the point of handover to the recycling facility." INT'L CHAMBER OF SHIPPING, SHIPPING INDUSTRY GUIDELINES ON TRANSITIONAL MEASURES FOR SHIPOWNERS SELLING SHIPS FOR RECYCLING 12 (2d ed. 2016).

⁴⁸ "Cash [b]uyers . . . provide indispensable services to the shipowner, namely: expertise in a specialized and difficult market; *reduction to the shipowner's risk*; payment in cash . . . (as opposed to payment by Letter of Credit)." MIKELIS, *supra* note 34, at 17 (emphasis added).

⁴⁹ *See, e.g.*, Margot Gibbs, "*A Moral Crime*": *Leaked Contract Reveals how Shipowners Wash Their Hands of Toxic Vessels via Offshore World*, FINANCE UNCOVERED, Jul. 23, 2019 (detailing leaked contract for sale for tanker *Coastal Energy Resolution*, made by Spanish shipowner Cepsa and offshore shell Conquistador Shipping, and communications revealing Conquistador to be an alter ego of cash buyer GMS).

⁵⁰ Karlis & Polemis, *supra* note 44, at 130-31. In the former circumstance, the cash buyer will become, for a short time, the vessel owner. *Id.* *See also* PUTHUCHERRIL, *supra* note 11, at 32.

⁵¹ *See* PUTHUCHERRIL, *supra* note 11, at 33.

Upon arriving at her final destination—Alang, in India, Chattogram, in Bangladesh, or Gadani, in Pakistan—the breaking yard takes delivery from the cash buyer and the condemned vessel, floating high above her waterline, waits for the full or new moon, which, twice a month, will bring an unusually high tide.⁵²

When ... the tide [is] highest, a beaching specialist essentially aims for a flag or fire burning on the shore and heads for it at full throttle. Once the tide has ebbed, workers cut holes in the hull so that the next tide will wash away pollutants from the interior. More holes are cut for ventilation, light and escape routes should fire break out ... [T]he ship is swarmed by torch-cutters who disassemble it from bow to stern. They cut the hull into large segments, which can be pulled farther up the beach by powerful winches. Bit by bit, these segments are chopped into 400-pound plates, the approximate maximum weight that can be lifted onto a truck by hand.⁵³

This is exceedingly dangerous work. Explosions result when torches ignite latent bunker fumes or other gases, workers can be crushed by falling steel plates and equipment, and workers themselves may fall to their deaths, as they habitually scale the anchor chains of beached vessels, and work at height without safety harnesses.⁵⁴ The inherently dangerous nature of the work is exacerbated by the density of workers toiling in close proximity and the general lack of personal safety equipment, such as respirators and safety glasses.⁵⁵ Bangladesh alone saw thirty-nine shipbreaking fatalities in the two-year period of 2017 and 2018.⁵⁶

Despite the risks, jobs at the shipbreaking yards are highly desirable. Most of the men who work on the beaches come from rural and impoverished inland communities.⁵⁷ The daily wage for a shipbreaker far exceeds what they can earn as a day laborer anywhere else in the economy.⁵⁸ These same economic forces draw underage workers; the Bangladeshi industry, in particular, has been sharply criticized for the persistent use of child labor.⁵⁹

Even men who leave their shipbreaking careers with life and limb intact are not unscathed by their years on the beach. Working without basic protective equipment, breakers are exposed to asbestos, PCBs,

⁵² *Id.* n. 167.

⁵³ McClearn, *supra* note 10. For more detailed accounts of the beaching process, see BUERK, *supra* note 34, and LANGEWIESCHE, *supra* note 7.

⁵⁴ See, e.g., Rousmaniere & Raj, *supra* note 7, at 365; Anwar Hussain, *Poor Workplace Safety Plagues Ship Breaking Industry*, DHAKA TRIBUNE, Apr. 8, 2019, <https://www.dhakatribune.com/bangladesh/nation/2019/04/08/poor-workplace-safety-plagues-ship-breaking-industry>; McClearn, *supra* note 10; Mostafa Yousuf, *Two Killed in Shipyard Blast*, DAILY STAR, Feb. 19, 2019, <https://www.thedailystar.net/country/news/worker-killed-sitakunda-shipbreaking-yard-1703779>.

⁵⁵ McClearn, *supra* note 10. Dr. Tapan Kumar Nath, who has run a mobile clinic in Chattogram, says “I meet workers with lung capacity as low as 20 percent. Many of these workers have been working on the shipyards for 25 years with dangerous gasses and asbestos. The accidents that kill many workers a year are one thing, but asbestos is the big silent killer. It leads to serious respiratory illness and kills the workers slowly.” Norma J. Martinez, *Maersk and the Hazardous Waste in Bangladesh*, DANWATCH, Oct. 15, 2016, <https://old.danwatch.dk/en/undersogelse/maersk-og-det-farlige-affald-i-bangladesh/>.

⁵⁶ Hussain, *supra* note 54.

⁵⁷ Rousmaniere & Raj, *supra* note 7, at 362-63.

⁵⁸ *Id.* Shipbreakers in Alang, circa 2007, were earning approximately 200 rupees daily (US\$5), compared to the 35 or 50 rupees these men could have expected from agricultural work. *Id.*

⁵⁹ Shashank Bengali, *Adult and Underage Workers Risk Their Lives in Bangladesh's Rising Ship-Breaking Industry*, L.A. TIMES, Mar. 9, 2016, <https://www.latimes.com/world/asia/la-fg-bangladesh-ships-20160309-story.html>.

and heavy metals, among other occupational health hazards.⁶⁰ An Indian government study projected that as many as sixteen percent of the Alang shipbreaking workforce suffers from asbestosis.⁶¹

III. THE FLAGGING PROBLEM

A. Flags of Convenience

All vessels must have a nationality, a flag State.⁶² The flag State exercises general jurisdiction over registered vessels.⁶³ The United Nation Convention on the Law of the Sea (UNCLOS) requires that there be a “genuine link” between the vessel and the flag State, but, lacking a definition, the genuine link requirement has, in practice, been satisfied by the registry relationship alone. Because of the ease of satisfying the genuine link requirement, and because “[e]very State shall fix the conditions for the grant of its nationality to ships,”⁶⁴ over the past century an international market in flagging services has developed, where nations compete to offer convenient, low-cost, and low-regulatory burden registration to merchant shipowners.⁶⁵ These nations are referred to as “open registries,” because, unlike other registries, they make few if any stipulations as to the nationality of vessels’ owners, operators, and crew.⁶⁶ Open registries, also known as “flags of convenience,” now predominate in the world merchant fleet.⁶⁷

Because some open registry States have been unwilling (or unable) to provide meaningful enforcement of international maritime conventions and norms, port State control has developed as a parallel enforcement regime, exercising jurisdiction over foreign-flagged vessels in their ports, under the territorial presence principle.⁶⁸ By voluntarily sailing into a foreign port, a vessel is deemed to have consented to the limited jurisdiction of the port State.⁶⁹ A port State authority, upon finding a violation of a relevant labor, safety, or environmental standard, may detain the foreign vessel, and/or refer the vessel to its flag State for further investigation and sanction. Port States have joined together in enforcement alliances, based on memorandums of understanding (MoUs), to pool information and standardize inspection regimes.⁷⁰ If an enforcement MoU network finds that a given flag State’s vessels are prone to serious violations, the flag

⁶⁰ “Ships constructed prior to 1980, it is believed, almost invariably contain asbestos used as thermal insulator for pipes and bulkheads.” Saurabh Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling Takes One Step Forward and Two Steps Back*, 1 TRADE L. & DEV. 193, 199 n. 22 (2009). See also Galley, *supra* note 24, at 101; McClearn, *supra* note 10.

⁶¹ Galley, *supra* note 24, at 98; Rousmaniere & Raj, *supra* note 7, at 367.

⁶² See, generally, Eric Powell, *Taming the Beast: How the International Legal Regime Creates and Contains Flags of Convenience*, 19 ANN. SURV. INT’L & COMP. L. 263, 269 (2013) (“the law of the flag is the internationally accepted starting point of high seas jurisdiction.”); H. Edwin Anderson III, *The Nationality of Ships and Flags of Convenience: Economics, Politics, and Alternatives*, 21 TUL. MAR. L.J. 139 (1996).

⁶³ Anderson, *supra* note 62, at 140.

⁶⁴ UNCLOS, Art. 91.

⁶⁵ Anderson, *supra* note 62, at 156. See generally, ELIZABETH R. DESOMBRE, FLAGGING STANDARDS: GLOBALIZATION AND ENVIRONMENTAL, SAFETY, AND LABOR REGULATIONS AT SEA (2006).

⁶⁶ Anderson, *supra* note 62, at 140.

⁶⁷ *Id.* at 157. There is no official definition of the term, but the most commonly cited definition identifies the following elements: 1) the country of registry allows for vessel ownership by non-citizens; 2) ships may be registered easily, usually at a consulate abroad (or now, over the internet); 3) taxes and fees are very low; 4) the flag State has registered tonnage disproportionate to the size of its economy or national security needs, but registry fees may play a substantial role its national income; 5) ships may be manned by non-nationals; and 6) the flag State “has neither the power nor the administrative machinery to effectively impose any governmental or international regulations; nor has the country even the wish or the power to control the companies themselves.” *Id.* at 157-58.

⁶⁸ Powell, *supra* note 62, at 291.

⁶⁹ *Id.* at 293.

⁷⁰ *Id.* The two predominant MoUs are the Paris MOU (North Atlantic nations) and the Tokyo MOU (Pacific nations). Most of the world’s port States are party to at least one enforcement MoU. *Id.*

may be placed on a “grey” or “black” list, subjecting that nation’s registered vessels to enhanced enforcement regimes—more frequent inspections and stiffer detention policies. Vessel owners will be reluctant to register with a black list flag, and open registries with good compliance records may advertise their “white list” status on the flag of convenience marketplace to shipowners eager to avoid costly port detentions.⁷¹ The port State control regime thus works to improve compliance on a national or registry basis, not just a vessel-by-vessel basis.⁷²

B. End-of-Life Flags

While port State control has proved generally, though not optimally, effective in enforcing international maritime safety, environmental, and labor standards,⁷³ the port State enforcement regime is particularly ill-suited to tackling the shipbreaking challenge.⁷⁴ As discussed immediately above, the port State control enforcement mechanism relies on the reputational and commercial harm suffered by flags of convenience when they appear on black or gray lists. Ships in commerce must move freely from one port and one nation to the next, and frequent inspections, or worse, lengthy detentions, are a powerful deterrent to the owner of a commercial trading vessel, be that trade cargo, passenger, or fishing.

The shipowner whose vessel is a floating hunk of scrap metal, valued by the lightweight displacement ton, is not so concerned with the ease of port entry and clearance. The only concern is whether she will be accepted at her final destination—which is, most often, a beach in India, Pakistan, or Bangladesh.⁷⁵

This gap has led to the development of a sub-class of flags of convenience—the end-of-life flag.⁷⁶ The end-of-life flag is the most convenient of the convenient, with registration packages available for purchase entirely online, without even the need to set up a mailbox or “ghost” company to establish nationality.⁷⁷ A “last voyage package” typically “includes fast-track registration procedures, valid only for a very limited period of time, at a special lower price.”⁷⁸

⁷¹ *Id.*; Anderson, *supra* note 62, at 293.

⁷² DESOMBRE, *supra* note 65, at 97–98.

⁷³ “[P]ort State control is a highly relevant factor in maintaining shipping standards,” but “not a panacea.” Anderson, *supra* note 62, at 291, 293.

⁷⁴ “The various Memorandums of Understanding (MoU) are primarily focused on the operational life of the ship.” Alcaidea et al., *supra* note 47, at 382. “Whilst port state control may be successful in reducing some substandard practices of the shipping industry and dissuade some ship owners from using the worst [flags of convenience], when a vessel reaches its end-of-life and commences its last voyage towards the shipbreaking yard, there is no scope and incentive for a port state to intervene.” NGO SHIPBREAKING PLATFORM, *What a Difference a Flag Makes: Why Ship Owners’ Responsibility to Ensure Sustainable Ship Recycling Needs to Go Beyond Flag State Jurisdiction*, Briefing Paper, Apr. 2015, at 13.

⁷⁵ Bhattacharjee, *supra* note 60, at 204. While scrapping yards lack traditional port state control, the host nations do retain the right to refuse entry to individual vessels bound for the beaches. This right has been exercised by Turkey, in connection with the Basel Convention, discussed further *infra*. See, e.g., Michael N. Tsimplis, *The Hong Kong Convention on the Recycling of Ships*, LLOYD’S MAR. & COM. L.Q., May 26, 2010, at 305, 312. However, there are many counter-examples, where shipbreaking nations accepted clearly questionable vessels—perhaps the most curious being the case of the *Riky*, a retired Danish ferry. Some sources say the *Riky* was sailed onto Alang beach under the flag of North Korea, others maintain that she was flying the flag of the fictional nation “Roxa.” See PUTHUCHERRIL, *supra* note 11, at 79 n. 184; Gopal Krishna, *The Scrapping of Riky*, INDIA TOGETHER, July 16, 2008, <http://www.indiatogether.org/riky-environment>.

⁷⁶ Alcaidea et al., *supra* note 47; NGO SHIPBREAKING PLATFORM, *supra* note 74. For general discussion of the market specialization of various open registries into “regulatory niches,” see DESOMBRE, *supra* note 65, at 46–53.

⁷⁷ NGO SHIPBREAKING PLATFORM, *supra* note 74, at 16.

⁷⁸ *Id.* The registry of St. Kitts & Nevis, operating out of a London suburb, reportedly offers short-term registration for approximately £5,250. Margot Gibbs, *Revealed: How a UK Company Is Using a Caribbean Tax Haven to Cash in on Scrapping Toxic Ships in One of the World’s Poorest Countries*, INDEPENDENT, Feb. 20, 2019,

A simple comparison of the proportionate registration of scrapped vessels, as compared to the distribution of registrations in the world fleet, reveals disproportionate representation of certain flags. In 2008: Tuvalu, St. Kitts & Nevis, St. Vincent & the Grenadines, Mongolia, the Comoros, Cambodia, and Dominica accounted for nearly twenty percent of recycled vessel tonnage and less than two percent of the fleet in service.⁷⁹ The disproportionate representation of these end-of-life flags on the beaches of South Asia is a “function of the low fees, low crewing standards, high anonymity and short-term registration that these States offer as [flags of convenience].”⁸⁰

A vessel which has spent its entire working life sailing under a white-flag open registry may change its registry for a final voyage, and simultaneously change its name and remove corporate logos.⁸¹ An empirical review of registry and scrapping data found that forty percent of beached vessels had changed flag shortly prior to decommissioning: “When arriving at shipbreaking yards in countries on the Indian subcontinent, ships previously registered under a white flag were now flying flags listed as grey or black.”⁸² Flags which have been implicated in this market include the Comoros, Sierra Leone, St. Kitts & Nevis, Tanzania, and Tuvalu.⁸³

IV. LEGAL REGIMES

A. The Basel Convention

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal addresses the export of hazardous wastes from wealthy, developed nations to poorer, developing nations.⁸⁴ The Basel Convention has three main objectives: to minimize the manufacture of hazardous wastes; to encourage disposal of waste as close as possible to its point of origin; and to ensure that disposal is as environmentally responsible.⁸⁵ Signatories may only export waste to other signatories, and only with the receiving nation’s prior informed consent.⁸⁶ Receiving nations may prohibit import of hazardous waste, either unilaterally or on a case-by-case basis.⁸⁷

The Basel Convention makes no special provisions for ship-recycling. Shipowners and shipbreakers have argued that ships bound for scrapyards are not covered by the import/export restrictions

<https://www.independent.co.uk/news/uk/home-news/ship-scrapping-skanreg-st-kitts-nevis-maritime-investigation-a8780796.html>.

⁷⁹ MARIA SARRAF ET AL., WORLD BANK, REPORT NO. 58275-SAS, THE SHIP BREAKING AND RECYCLING INDUSTRY IN BANGLADESH AND PAKISTAN 52 (2010).

⁸⁰ Michael Galley, *Flagging Interest: Ship Registration, Owner Anonymity, and Sub-Standard Shipping*, 14 MOUNTBATTEN J. LEGAL STUD. 87, 101 (2013).

⁸¹ See, e.g., Gibbs, *supra* note 49 (contract of sale requires cash buyer to reflag and rename vessel, and alter any funnel markings, “immediately upon delivery”); Ove Heimsvik, *Tide Carrier er Alt Under Kontroll? [Tide Carrier, is Everything Under Control?]*, AFTENBLADET, Aug. 26, 2017, <https://www.aftenbladet.no/magasinet/i/bpkw5/tide-carrier-er-alt-under-kontroll> (describing concurrent sale, reflagging, name change, and alteration to funnel logo in the case of the *Eide Carrier/Tide Carrier/Harrier*).

⁸² Alcaidea et al., *supra* note 47, at 386. Sale to a cash buyer “is often accompanied by a change of flag and certificates. For insurance reasons it may be financially attractive to have a certificate issued specifically for the final voyage to demolition.” Thomas Ormond, *Enforcing EU Environmental Law Outside Europe? The Case of Ship Dismantling*, ENVTL. L. NETWORK INT’L REV., Mar. 2009, at 17–18 (footnote omitted).

⁸³ Alcaidea et al., *supra* note 47, at 386. See also NGO SHIPBREAKING PLATFORM, *supra* note 74, at 16–20.

⁸⁴ Bhattacharjee, *supra* note 60, at 205.

⁸⁵ *Id.* at 205–06.

⁸⁶ Tsimplis, *supra* note 75, at 305, 309.

⁸⁷ *Id.*

of the Basel Convention, on the theory that operational vessels do not fall under the Convention's definition of "waste."⁸⁸

The Basel Convention defines "waste" as "substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law."⁸⁹ Commercial vessels at the end of their working lives will invariably contain materials considered hazardous under the Convention—including, but not limited to, waste oils, polychlorinated biphenyls (PCBs), zinc compounds, lead compounds, and asbestos.⁹⁰ A ship would therefore seem to be "waste" when it arrives at its final destination—when it is "disposed"—though, as noted, shipowners have argued that ships can never be considered "waste" under the Convention, so long as they remain under their own power. Pre-cleaning of vessels, to remove all hazardous materials before export, is not a practical option, as removing all hazardous material, including asbestos insulation on pipes and in engine rooms, and oil sludge accumulated in the bottom of fuel tanks, will render the vessel unsafe and unseaworthy for her final voyage.

Assuming that a vessel may be properly categorized as waste, the remaining question is *when* the vessel becomes waste—either when it is disposed, or, more subjectively, when its owner develops the *intent* to dispose of it. A shipowner might, for example, not declare its intent to scrap a vessel until it had reached international waters, or the territorial waters of the recycling state.⁹¹ "By all means, it is hard to prove the subjective intention of the seller to dispose of the vessel as hazardous waste while it could—technically—still continue to trade."⁹²

An additional challenge in applying the Basel Convention to shipbreaking operations is the difficulty in identifying the "exporting state." Some commentators, including State parties, have argued that the flag State should always be considered the exporting State.⁹³ *Quaere* what result if a vessel is re-flagged during her final voyage—which State would be considered to be exporting the vessel? Additional challenges arise from the nature of the modern open registries or flags of convenience, which means a large proportion of the global fleet (and a disproportionate number of vessels bound for demolition) are flagged by States without the ability or desire to exercise meaningful jurisdictional control.⁹⁴ The logical alternative, to consider the last port of call before dismantling the exporting State, has its own challenges, especially where the intent to recycle the vessel is not announced until after departure.⁹⁵

A fundamental obstacle to the application of the Basel Convention to shipbreaking contracts is the resistance of the importing Asian states.⁹⁶ While embracing and enforcing the Convention in regards to other forms of hazardous waste, these nations largely lack the political will to prevent the import of vessels bound for the beaches, presumably because of the negative economic implications of such enforcement.⁹⁷ There are exceptions—in November 2019, the High Court of Bangladesh held that the import of former Maersk floating production storage and offloading (FPSO) vessel *North Sea Producer* had been illegal, because the importers did not disclose the full array of hazardous materials onboard, including

⁸⁸ Cairns, *Return to Chittagong*, *supra* note 27, at 342. See also Gabriela Argüello Moncayo, *International Law on Ship Recycling and Its Interface with EU Law*, 109 MARINE POLLUTION BULL. 301, 309 (2016); Bhattacharjee, *supra* note 60, at 209; Ormond, *supra* note 82, at 17.

⁸⁹ Art. 2(1). See e.g., Argüello Moncayo, *supra* note 88, at 307; Ormond, *supra* note 82, at 17.

⁹⁰ Tsimplis, *supra* note 75, at 311.

⁹¹ Paridhi Poddar & Sarthak Sood, *Revisiting the Shipbreaking Industry in India: Axing Out Environmental Damage, Labour Rights' Violation and Economic Myopia*, 8 NAT'L U. JURID. SCI. L. REV. 245, 250 (2015).

⁹² Henning Jessen, *Maritime Transport Law and the European Union in the 21st Century*, in MARITIME LAW—CURRENT DEVELOPMENTS AND PERSPECTIVES: PUBLICATION ON THE OCCASION OF THE 35TH ANNIVERSARY OF THE INSTITUTE FOR THE LAW OF THE SEA AND MARITIME LAW (HAMBURG) 51, 58 (Peter Ehlers & Marian Paschke, eds., 2018).

⁹³ Argüello Moncayo, *supra* note 88, at 303.

⁹⁴ *Id.*

⁹⁵ Bhattacharjee, *supra* note 58, at 215.

⁹⁶ Ormond, *supra* note 82, at 18.

⁹⁷ *Id.*

impermissible levels of radiation.⁹⁸ The illegal import cannot be returned—the vessel sat, half-butchered, on Chattogram beach. Demolition had been halted since a 2017 court injunction, and now government agencies will assume the responsibility for completing the job.⁹⁹ The court’s latest ruling directed local authorities to exercise stricter scrutiny over cash buyers and vessels entering under black or grey flags.¹⁰⁰

B. The Basel Ban Amendment

After the Basel Convention’s entry into force, critics argued that it failed to prevent the flow of hazardous materials from Western, developed nations, into less-developed countries. They pointed out that the Convention’s intent could be circumvented by declaring transboundary shipments as materials designated for recycling or recovery,¹⁰¹ and that “prior informed consent” was an inadequate standard for hazardous material export given the unequal power dynamic between the exporting, developed nation and the importing, less-developed nation.¹⁰²

These criticisms led to the adoption of the resolution known as the Ban Amendment, or the Basel Ban, in 1995.¹⁰³ The Ban prohibits all exports of hazardous waste from Organization for Economic Cooperation and Development (OECD) members to non-OECD nations.¹⁰⁴ Entry into force required the ratification of three-quarters of the nations party to the Convention as of the introduction of the Ban Amendment, in 1995.¹⁰⁵ In September 6, 2019, Croatia deposited its instrument of ratification, and the Amendment finally passed the necessary threshold for entry into force.¹⁰⁶ As of December 5, 2019, the Ban Amendment is binding on all Basel Convention signatories who adopted the Amendment, and any nation that accedes to the Convention after that date.¹⁰⁷ As will be discussed further, the greatest impact of the Ban Amendment has been in Europe, where the language of the Ban Amendment was incorporated into EU law in 2006.

⁹⁸ *NGOs Win FPSO North Sea Producer Shipbreaking Case*, MAR. EXECUTIVE, Nov. 20, 2019, <https://www.maritime-executive.com/article/ngos-win-fpso-north-sea-producer-shipbreaking-case>. The vessel departed the U.K. in 2016 on her final voyage, reportedly under the false pretense that she would continue operations. Maersk has expressed regret that its vessel was beached in Bangladesh, following sale to a cash buyer. *Id.* NGO Shipbreaking Platform is still pressing for possible U.K. prosecution of Maersk, its Brazilian partner-owner, and the cash buyer. *North Sea Producer Judgement*, NGO Shipbreaking Platform, Nov. 19, 2019, <https://www.shipbreakingplatform.org/north-sea-producer-judgement/>. See also Gibbs, *supra* note 78 (investigating roles of GMS as cash buyer and St. Kitts and Nevis as offshore tax haven and flag of convenience in the *North Sea Producer* case). The vessel became radioactive over years of offshore oil production and storage: “naturally occurring radioactive elements like radium can end up in a well’s produced water in significant quantities. This material can concentrate in a production platform’s water handling system, settling out as a sediment or forming a mineral scale. Concentrations of these radioactive materials vary markedly, but older fields that rely on well-stimulation—like the MacCulloch field, the *Producer*’s former site—generate more produced water and may bring more dangerous material to the surface.” *FPSO North Sea Producer Poses Radiation Hazard*, MAR. EXECUTIVE, June 14, 2017.

⁹⁹ *NGOs Win FPSO North Sea Producer Shipbreaking Case*, *supra* note 98.

¹⁰⁰ *Id.*

¹⁰¹ Richard Gutierrez, *International Environmental Justice on Hold: Revisiting the Basel Ban from a Philippine Perspective*, 24 DUKE ENVTL. L. & POL’Y F. 399, 400-10 (2014); Yujuico, *supra* note 32, at 344.

¹⁰² Gutierrez, *supra* note 101, at 407.

¹⁰³ For an account of the procedural details of the adoption of the Ban, see *id.* at 410-12.

¹⁰⁴ *Id.* Lichtenstein, a non-OECD nation, is also included in the first category. *Id.*

¹⁰⁵ *Id.* at 414-15.

¹⁰⁶ See Depository Notification, Amendment to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, U.N. Doc. C.N.420.2019.TREATIES-XXVII.3.a (Sept. 6, 2019); BASEL ACTION NETWORK & IPEN, THE ENTRY INTO FORCE OF THE BASEL BAN AMENDMENT: A GUIDE TO IMPLICATIONS AND NEXT STEPS 4 (Nov. 2019).

¹⁰⁷ Depository Notification, *supra* note 106.

C. The ILO Guidelines on Shipbreaking

As mentioned, the Basel Convention was never designed to address the particular labor and environmental challenges of the shipbreaking industry. The first international instrument directed squarely at the industry came in 2003, when the International Labor Organization (ILO) formulated a set of “Guidelines on Safety and Health in Shipbreaking” addressed to ship recyclers and national governments.¹⁰⁸ As suggested by their title, these provisions were not legally binding, but were rather intended to provide a set of best practices for the benefit of responsible ship recyclers, and to lay out minimum standards for health and safety to be implemented by domestic legislation and regulation.¹⁰⁹

D. The Hong Kong Convention

Following the publication of the ILO guidelines, the IMO, ILO, and Basel Convention convened a tripartite Joint Working Group on Ship Scrapping, to coordinate their various efforts on labor and environmental problems of the shipbreaking industry.¹¹⁰ The practical and conceptual difficulties of applying the Basel Convention’s standards to the shipbreaking industry, and the non-binding nature of the ILO Guidelines, led to broad agreement that a purpose-built treaty for ship recycling was needed.¹¹¹ Spurred by the Joint Working Group, and developed primarily under the auspices of the IMO, the Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships (Hong Kong Convention or HKC) was adopted in 2009.¹¹²

The Hong Kong Convention adopts a “cradle-to-grave” regulatory perspective.¹¹³ At the cradle, it bans the use of asbestos and some other hazardous substances and requires that shipbuilders declare the location and quantity of any permissible hazardous materials in an inventory of hazardous materials (IHM).¹¹⁴ An IHM, also known as a “green passport,” is issued by the flag State, carried onboard, and kept up-to-date for the vessel’s working life.¹¹⁵ Existing vessels will be surveyed to establish a baseline IHM.

In addition to issuing IHMs for their own vessels, States party to the Convention will exercise their port State jurisdiction to require all visiting vessels to produce an IHM. When a shipowner decides to scrap a vessel, a second document must be obtained, an International Ready for Recycling Certificate (IRRC), to be issued by the flag State.

Shipbreaking facilities located in States party to the Convention may not accept any vessel for demolition, absent a compliant IHM and IRRC.¹¹⁶ Port States are responsible for assuring that their shipbreaking facilities meet the standards of the Convention, which include workplace safety and environmental provisions. Facilities must use the IHM to identify, label, package, and remove hazardous

¹⁰⁸ *Safety and Health in Shipbreaking: Guidelines for Asian Countries and Turkey*, INT’L LAB. ORG. (2003), <https://www.ilo.org/public/english/standards/relm/gb/docs/gb289/pdf/meshs-1.pdf>.

¹⁰⁹ *Id.* See also Md Saiful Karim, *Violation of Labour Rights in the Ship-Breaking Yards of Bangladesh: Legal Norms and Reality*, 25 INT’L J. COMP. LAB. L. & INDUS. REL. 379, 381-82 (2009); Matz-Lück, *supra* note 4, at 98.

¹¹⁰ Galley, *supra* note 24, at 116-17; FINAL REPORT, JOINT ILO/IMO/BC WORKING GROUP ON SHIP SCRAPPING, THIRD SESSION, Oct. 31, 2008, https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/meetingdocument/wcms_161509.pdf.

¹¹¹ Argüello Moncayo, *supra* note 89, at 304; Bhattacharjee, *supra* note 60, at 215-16; Tsimplis, *supra* note 75, at 307-08.

¹¹² Bhattacharjee, *supra* note 60, at 195; Galley, *supra* note 24, at 116-17. As discussed below, the Convention has yet to come into force.

¹¹³ See Argüello Moncayo, *supra* note 89, at 304; Bhattacharjee, *supra* note 60, at 216, 221.

¹¹⁴ Hillyer, *supra* note 28, at 783-84. Permissible hazardous components include radioactive materials, flame retardants, and heavy metals. *Id.*

¹¹⁵ *Id.* For an excellent practical discussion of the IHM requirement, see INT’L CHAMBER OF SHIPPING, *supra* note 47, at 8-11.

¹¹⁶ Facilities may accept vessels flagged by non-party States, provided they can provide equivalent satisfactory documentation.

materials.¹¹⁷ Hazardous materials must be stored, transported, and disposed of in a safe and environmentally responsible manner.

The Hong Kong Convention has heavily criticized by the same environmental and human rights NGOs whose campaigns led to development.¹¹⁸ The Convention does not require informed prior consent of the receiving State.¹¹⁹ Enforcement provisions are slight, and the entire structure of the treaty is heavily reliant on paper documentation (certificates, licenses, inventories) generally verified only by the issuing State. Given the levels of government corruption in many of the major shipbreaking and open registry States, many critics doubt the efficacy of such requirements.¹²⁰ No provision was made to direct funds to shipbreaking nations for facility improvements.

Perhaps worst of all to the activists, the new Convention failed to ban beaching, the practice which they still campaign against. Nor was there any mechanism to prevent out-flagging (the re-flagging of an end-of-life vessel to a non-party State, in order to scrap the vessel at a non-party yard for a higher return). An earlier draft had required parties to provide information on vessels removed from their registries (de-registered) for the purpose of recycling.¹²¹ The Bahamian delegation argued this was impractical and unnecessary, and the clause was deleted.¹²²

The HKC has an unusual, tripartite ratification prerequisite. The Convention will come into force two years after it is ratified by: 1) at least fifteen states, representing 2) at least forty percent of world merchant tonnage (by flag); with 3) combined maximum annual ship recycling volume during the preceding ten years equaling no less than three percent of the gross tonnage of the contracting states. These requirements are designed to ensure that the HKC will not come into force until (and unless) nations with significant shipbreaking capacity are willing to comply, presumably assuring the other ratifying shipowning nations that there will be compliant yards to consign their ships to.

However logical this reasoning, the requirement that the contracting States have shipbreaking capacity in proportion to their combined tonnage introduces perverse incentives; should, for example, too many open registry nations ratify, and the combined contracting tonnage climb far above forty percent, reaching the shipbreaking capacity requirement will become more and more difficult.¹²³ This approach may “pose [...] the risk of making entry into force hostage to the decision of just one or two states.”¹²⁴ Guy Platten, Secretary-General of the International Council on Shipping, recently told stakeholders “perversely, the requirements require larger flag states ... not to ratify the convention... The big flag states could kill the convention with kindness.”¹²⁵ Further, by calculating the requisite recycling capacity *retrospectively*, the

¹¹⁷ ESRR, Reg. 20.2.

¹¹⁸ Ormond, *supra* note 82, at 19.

¹¹⁹ Tsimplis, *supra* note 75, at 329.

¹²⁰ “[A] system which relies upon certificates, authorizations, the control of inventories and licenses is prone to corruption.” Matz-Lück, *supra* note 4, at 103.

¹²¹ Tsimplis, *supra* note 75, at 317.

¹²² *Id.* The Bahamians argued “that the registration legislation in some countries does not provide for declaration of intention for the use of the ship, and that there is no internationally agreed practice in this respect.” *Id.*

Arguably, this concession is a major one. Imposing a duty to request information about the use of the ship is within the Basel Convention’s framework of obligations imposed on all parties to ensure the environmentally sound disposal of the ship. It is not easy to understand how a State, such as the Bahamas, that has acceded to the Basel Convention considers that it acts in compliance with the obligations regarding hazardous wastes imposed by that Convention without requesting information about the owner’s intentions to recycle the ship.

The amendment ... opens a loophole by which changes in the registration of the ship for the purpose of avoiding the [HKC] are not going to be easily traceable.

Id. at 318.

¹²³ See Mikelis, *supra* note 37.

¹²⁴ URS DANIEL ENGELS, EUROPEAN SHIP RECYCLING REGULATION: ENTRY-INTO-FORCE IMPLICATIONS OF THE HONG KONG CONVENTION 230 (2013) (quoting PHILIPPE SANDS, PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW 133 (2d ed. 2003)).

¹²⁵ Remarks made May 10, 2019, at IMO seminar, “Towards the early entry into force of the Hong Kong Convention,” and quoted by Paul Gunton, *Hopes Rise for Recycling Convention, but a Future Scrap May Result*, SHIPINSIGHT, May

Convention's entry-into-force provisions "neglect[] both the fact that previously existent capacity might not be available in the future, and the problem that the existing capacity does not necessarily equal to 'green' capacity."¹²⁶

As of this writing, the Convention has been ratified by fifteen states: Belgium, Congo, Denmark, Estonia, France, Germany, Ghana, India, Japan, Malta, Netherlands, Norway, Panama, Serbia and Turkey.¹²⁷ Between them, they represent approximately 30 percent of world merchant fleet gross tonnage.¹²⁸ Over the past ten years, these nations have recycled vessels equaling 12.2 million gross tons, more than 3% of their combined floating gross tonnage.¹²⁹

Bangladesh has a statutory five-year timetable in place, for ratification by 2023.¹³⁰ China is moving ahead with plans for ratification, despite the existing ban on foreign vessel demolition.¹³¹ At the end of 2019, Nikos Mikelis, non-executive director of cash buyer GMS, expressed his confidence in Bangladeshi ratification, and hope that it would happen before 2023.¹³² Liberia and the Marshall Islands are said to be waiting in the wings, to bring the tonnage total up to forty percent.¹³³

E. The European Waste Shipping Regulation

As referenced earlier, the Basel Ban Amendment has been incorporated into European Union law, as of 2006, by the European Waste Shipment Regulation.¹³⁴ Therefore, sending a ship containing hazardous substances from an EU nation to a developing nation for recycling is prohibited and subject to criminal sanction.¹³⁵ This ban has been enforced against shipowners on a few occasions, barring the export of vessels from EU member States, bound for South Asian scrapping facilities.¹³⁶ These actions are the rare exception.¹³⁷

13, 2019, https://shipinsight.com/articles/hopes-rise-for-recycling-convention-but-a-future-scrap-may-result?mc_cid=d43b24ce01&mc_eid=434d2cf1c4.

¹²⁶ ENGELS, *supra* note 124, at 230.

¹²⁷ *India Accedes to the Hong Kong Convention*, MAR. EXECUTIVE, Nov. 28, 2019.

¹²⁸ *Id.*

¹²⁹ Paul Gunton, *Recycling News: India Ratifies but HKC Still has Far to Go*, SHIPINSIGHT, Dec. 9, 2019, <https://shipinsight.com/articles/recycling-news-india-ratifies-but-hkc-still-has-far-to-go>.

¹³⁰ *Id.*

¹³¹ *Id.* Because the ratification qualifications consider parties' demolition tonnage over the past ten years, China's accession would still have a considerable impact on the recycling tonnage entry-into-force factor. *Id.*

¹³² Nikos Mikelis, *Developments in Ship Recycling in 2019*, MAR. EXECUTIVE, Dec. 15, 2019, <https://www.maritime-executive.com/editorials/developments-in-ship-recycling-in-2019>.

¹³³ *Id.* "However . . . one needs to remember that the gross tonnage of the world fleet is presently increasing, with an annual rate of around 3.5 percent. Consequently, in subsequent years the market share of countries may vary from the figures quoted here, which relate to fleets at the end of 2018." *Id.* See also Mikelis, *supra* note 37. David Pascoe, an executive at the Liberian registry's management company, has said that that Liberia is in favor of the Hong Kong Convention's entry into force, but has delayed ratification because the size of its fleet "could complicate the criteria for entry into force." Gunton, *supra* note 129.

¹³⁴ Council Reg. 259/93/EEC on the Supervision and Control of Shipments of Waste within, into and out of the European Community [1993] OJ L30/1, replaced by (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste.

¹³⁵ *Id.* See also Michael Tsimplis, *Recycling of EU Ships: From Prohibition to Regulation?*, LLOYD'S MAR. & COM. L.Q., Aug. 2014, 416, 420.

¹³⁶ *Stichting Greenpeace Nederland v. Staatssecretaris van Volkshuisvesting, Ruimtelijke Ordening & Milieubeheer (The Otapan)*, NJB 2007, 553 (ABRvS (Neth.) 21 februari 2007), *Upperton Ltd. v. Minister van Volkshuisvesting, Ruimtelijke Ordening & Milieubeheer (The Sandrien)*, AB 2002, 388 m.nt. F.C.M.A. Michiels (ABRvS (Neth.) 19 juni 2002). See also GALLEY, *supra* note 11, at 128-36. In 2018, a shipowner was, for the first time, prosecuted under the EWSR for export of a vessel after demolition had taken place, a prosecution discussed in detail herein.

¹³⁷ "[O]ccurrences where owners were prevented from sending their ships to South Asian yards are extremely rare." Ormond, *supra* note 82, at 18.

F. The European Ship Recycling Regulation

In a process analogous to the international community's drafting of the HKC in the shadow of the Basel Convention, the European community reached a consensus that the EWSR was ill-suited to the practice of shipbreaking. A specialized regulation, the European Ship Recycling Regulation (ESRR), resulted and entered into force on 31 December 2018.¹³⁸

The ESRR, like the HKC, requires vessels to carry an IHM onboard—here called an “inventory certificate.”¹³⁹ Vessels flagged by EU member States may only be scrapped at a yard on the “EU List” of environmentally responsible scrapping facilities, which have passed inspection by a competent authority.¹⁴⁰ The EU List is composed of two sub-lists. Facilities located in member states are certified compliant by relevant domestic authorities and listed at Part A. Facilities located in third-party states must apply to the European Commission for inclusion, and will then be subject to inspection and audit, for possible inclusion at Part B of the list.¹⁴¹ Unlike the HKC, the ESRR creates a de facto ban on beaching by requiring that “ship recycling facilities” be operated “from built structures.”¹⁴² Non-EU vessels calling on EU ports will be required to present inventory certificates which comply with the ESRR.¹⁴³ Of note, four United Kingdom facilities are currently listed at Part A off the list. In light of Brexit, the European Commission has notified stakeholders that, “Subject to any transitional arrangement that may be contained in a possible [UK] withdrawal agreement, as of the withdrawal date, the entries in the European List of ship recycling facilities for facilities located in the United Kingdom will become void. As a consequence, ships flying the flag of a Member State of the Union may no longer be recycled at these ship recycling facilities.”¹⁴⁴

Thus far, two main criticisms of the ESRR have emerged. First, industry players are concerned about the capacity of the EU List of approved facilities. While non-EU facilities may apply for inclusion, it is unlikely that any South Asian beaching facility can meet the EU requirements without major capital investment. A recent EU inspection of an Alang facility noted many improvements, but found the facility lacking. The inspectors found that the facility was not “operating from a built structure” and that primary cutting was taking place on the permeable tidal flats—a significant violation of the ESRR's environmental

¹³⁸ See Nikos Mikelis, *No Sleepless Nights for the E.U.*, MAR. EXECUTIVE, Dec. 25, 2018, <https://www.maritime-executive.com/editorials/ship-recycling-no-sleepless-nights-for-the-e-u>.

¹³⁹ European Ship Recycling Regulation (ESRR), Art. 4.

¹⁴⁰ ESRR, Arts. 13–15. See also Tsimplis, *supra* note 135, at 433–35.

¹⁴¹ The currently effective fifth edition of the EU List is available at Commission Implementing Decision 2019/995, 2019 O.J. (L 160).

¹⁴² ESRR, Art. 13(1)(c). The European Community Shipowners' Association (ECSA) does not believe this language should be interpreted as a beaching ban: “[t]he EU SRR does not ban any recycling method . . . A ban on beaching [] risks to exclude the current world largest ship recycling market (+ 91.6% of tonnage in 2018) to the EU list.” ECSA REPORT, ECSA VISIT TO INDIAN SHIP RECYCLING FACILITIES, ALANG-SOSIAYA 19(Apr. 2019) at 19.

¹⁴³ ESRR, Art. 32(2)(b).

¹⁴⁴ Notice to Stakeholders, European Commission Directorate-General Environment (March 28, 2018). UK facilities may re-apply for inclusion on the third-party state list at Part B. *Id.* See also Richard Coles & Andrew Serdy, *Ship Registration and Brexit*, 43 TUL. MAR. L.J. 289, 300–01 (discussion of Brexit's implications for HKC and ESRR). Optimistically, “Brexit will permit a rational appraisal of how the [EU shipbreaking] system can be optimised . . . [F]or example, by removing both the EU implementation of the Ban Protocol and the EU ship regulation for recycling, and applying the core of the Basel Convention to follow environmentally sustainable practices.” Sofia Syreloglou & Mikis T. Tsimplis, et al., *Brexit: Adjusting the Sails*, LLOYD'S SHIPPING & TRADE L., June 6, 2017. In November 2019, UK attorneys at HFW wrote, “Even if a no-deal Brexit is pushed through, a draft Statutory Instrument is currently being considered in order to adopt the SRR to the fullest extent possible into English law.” William Gidman, Rory Butler & Stephen Drury, *Do I Need a Ship Recycling Policy*, HFW BRIEFING (Nov. 2019), available at <https://www.hfw.com/Do-I-Need-a-Ship-Recycling-Policy>. As of this writing, the UK has withdrawn from the EU, but remains in a transitional status, with EU rules still in place, until January 1, 2021. See generally, Tom Edgington, *Brexit: What is the Transition Period?*, BBC NEWS (Jan. 31, 2020), <https://www.bbc.com/news/uk-politics-50838994>.

requirements.¹⁴⁵ The occupational health and safety inadequacies should prove to be more easily remedied: the main failings were as to ambulance and hospital access and injury reporting.¹⁴⁶ Some have also argued that the EU List is protectionist.¹⁴⁷

The second major criticism comes from the NGOs. They point out that the ESRR, like the Basel and Hong Kong Conventions, fails to prevent out-flagging at the end of life:

[O]wners of EU-flagged ships can circumvent the [European] SRR in two ways:

1. Re-flagging of the ship by the same owner: the ship changes the flag in favour of a flag state that does not have the environment regulations stipulated by the SRR and the like, but the owner remains the same;
2. Re-flagging of the ship by a new owner: the owner sells the ship to a new owner, who subsequently re-flags the ship to a flag state that does not have environmental regulations such as the SRR.

Although re-flagging is not illegal, doing so with the direct intention of circumventing the SRR is against the spirit of the regulation.¹⁴⁸

In 2016, anticipating possible impacts of the forthcoming ESRR, Maersk executive Annette Stube said, “if [] a flag from Denmark or another EU country [] hinders our ability to use the yards in Alang, which we believe deliver a responsible shipbreaking service, then we will consider changing the flag.”¹⁴⁹

While such out-flagging is already a problem under the existing regime, “the risk of an increased reflagging of EU ships—beyond what is already common practice now—is real. That risk might, however, be reduced if the ‘European List’ were linked with financial incentives for good ship recycling.”¹⁵⁰ The European Community Shipowners’ Association (ECSA) predicts that, if Indian yards continue to be excluded from the European List, “a two-tier market will be created as EU flagged ships, which consist around 22% of the world fleet during their operational live[s], will not be allowed to go to HKC-certified facilities unless they are also on the EU list ... Unless they reflag out of an EU flag, they will suffer severe (financial) disadvantages compared to their non-EU competitors.”¹⁵¹ In 2019, the first year of the ESRR,

¹⁴⁵ DNV-GL, REPORT NO. 2019-0072: INSPECTION OF A SHIP RECYCLING FACILITY IN INDIA: SITE INSPECTION REPORT APPLICATION 003, EUROPEAN COMMISSION DIRECTORATE-GENERAL FOR THE ENVIRONMENT 8–10, 28–34 (2019). Nikos Mikelis, the architect of the HKC and non-executive director of cash buyer GMS, contends that the ESRR language barring recycling on permeable surfaces is stricter than the EU intended: “in the summer of 2013, after the final version of the Regulation had been agreed between the Council and the Parliament, there was a highly irregular intervention by an advisor to the Green Party in the European Parliament who managed, unnoticed, to make some small changes to the agreed text in some of the EU languages, including English. The changed text in Article 13(1)(g)(i) in essence requires that: ‘the handling of hazardous materials, and of waste’ must be doing on impermeable floors; as opposed to the agreed text, which referred to ‘the handling of hazardous materials and waste’ (i.e. the word hazardous applying to both, materials and wastes). As in European regulatory language an ‘end-of-life ship’ is considered ‘waste,’ but not necessarily ‘hazardous waste,’ it follows that the changed text can be interpreted as requiring that nothing from the ship may touch the beach, not any clean steel blocks, not even a table and chairs! . . . When it was . . . realised how the changed text could be interpreted, the European Council proposed to the Parliament and the Commission a Corrigendum [] to reinstate the agreed text. . . . [T]he issue remains unresolved.” MIKELIS, *supra* note 33, at 46.

¹⁴⁶ *Id.* at 40–42, 51–53.

¹⁴⁷ See Geoff Garfield, *EU Recycling List Smacks of Protectionism, Says Bimco*, TRADEWINDS, Apr. 8, 2019, <https://www.tradewindsnews.com/casualties/1749880/eu-recycling-list-smacks-of-protetionism-says-bimco>.

¹⁴⁸ ECORYS, DNV-GL & ERASMUS SCHOOL OF LAW, FINANCIAL INSTRUMENT TO FACILITATE SAFE AND SOUND SHIP RECYCLING 44 (2016).

¹⁴⁹ Tomas Kristiansen, *Maersk Considers Flagging Out Ships in Response to EU Rules*, SHIPPINGWATCH, May 30, 2016, <https://shippingwatch.com/secure/carriers/Container/article8711697.ece>.

¹⁵⁰ Thomas Ormond, *Hong Kong Convention and EU Ship Recycling Regulation: Can They Change Bad Industrial Practices Soon?*, ENVTL. L. NETWORK INT’L REV. 54, 58 (2012).

¹⁵¹ ECSA REPORT, *supra* note 142, at 21.

Danish shipping giant Maersk out-flagged at least seven end-of-life vessels, from the Danish registry to that of Singapore.¹⁵²

During the development of the ESRR, NGOs advocated for the inclusion of a specialized financial instrument to remove the financial incentive to out-flag at the end of life. A variety of forms have been proposed, such as a ship recycling guarantee, ship recycling account, ship recycling insurance, a port levy/ship recycling fund,¹⁵³ but the basic premise is to require EU shipowners to amortize the additional cost of safe and responsible recycling over the working life of the vessel so that, when the time comes to scrap, EU List yards will be able to match the high dollar-per-ton bids of non-compliant beaching yards (with the proceeds of the financial instrument compensating the EU List yard for its higher operating expenses).¹⁵⁴

In 2013, a draft EU ship recycling regulation establishing a “scrapping fund” made it out of committee, only to be narrowly voted down by the European Parliament.¹⁵⁵ Shipowners were (and are) vociferously opposed to any financial instrument, arguing that any additional levy or charge will only hurt the competitive position of EU registries and EU ports in the global shipping market and could delay entry-into-force of the Hong Kong Convention.¹⁵⁶ The terms of the ESRR that eventually passed the European Parliament in 2015 provide only that such an instrument should be evaluated and considered.¹⁵⁷ Though an EU-commissioned study supported the creation of a financial instrument,¹⁵⁸ the European Commission decided, in 2017, to again defer the question for further study and consideration.¹⁵⁹ As of this writing, there are no concrete plans to create a ship recycling financial instrument.

V. FIVE APPROACHES TO THE SHIPBREAKING PUZZLE

The remainder of this article will examine five recent developments in the campaign to improve workplace and environmental protections in the shipbreaking industry.

¹⁵² Niklas Krigslund, *Maersk Out-Flagged Four Ships from Denmark and Sent Them to Alang*, SHIPPINGWATCH, Nov. 20, 2019, <https://shippingwatch.com/secure/carriers/Container/article11768700.ece>.

¹⁵³ See EUR. COMM’N, REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL ON THE FEASIBILITY OF A FINANCIAL INSTRUMENT THAT WOULD FACILITATE SAFE AND SOUND SHIP RECYCLING (2017). The current favored proposal is for a “ship recycling license.” *Id.*

¹⁵⁴ *Id.*

¹⁵⁵ MIKELIS, *supra* note 34, at 50 (vote against scrapping fund was 299 to 292); Katrine Grønvald Raun, *Scrapping Proposal Takes Flak from Shipowners and Ports*, SHIPPINGWATCH, Mar. 27, 2013, <https://shippingwatch.com/articles/article5282944.ece>; Louise Vogdrup-Schmidt, *Schlyter: Parliament Fooled by Lobbyists*, SHIPPINGWATCH, Apr. 19, 2013, <https://shippingwatch.com/secure/carriers/article5352346.ece>.

¹⁵⁶ See *Asian Shipowners Reject EU Proposal to Pay for Ship Recycling Licenses*, POST ONLINE MEDIA, July 18, 2016, https://www.poandpo.com/news_business/asian-shipowners-reject-eu-proposal-to-pay-for-ship-recycling-licenses-1872016733/; Daniel Logan Berg-Munch, *Shipowners Flat Out Reject Scrapping Fund*, SHIPPINGWATCH, July 8, 2016, <https://shippingwatch.com/secure/carriers/article8834080.ece>; *Shipping Industry Slams Unworkable European Proposals*, MAR. RISK INT’L, May 1, 2013.

¹⁵⁷ “Even though the original proposal was rejected, it remained alive in a somewhat different form when the EU Commission, following the newly adopted scrapping regulations, had to examine potential financial initiatives that could possibly be added to the regulation in late 2016.” Katrine Grønvald Raun, *NGO: Sustainable Scrapping will Collapse without Fund*, SHIPPINGWATCH, Jan. 6, 2016, <https://shippingwatch.com/secure/carriers/article8348225.ece>.

¹⁵⁸ ECORYS, ET AL., *supra* note 148. See also Niklas Krigslund, *EU Report Backs Proposed Recycling License*, SHIPPINGWATCH, July 7, 2016, <https://shippingwatch.com/secure/carriers/article8830258.ece>. Nikos Mikelis, non-executive director of cash buyer GMS and architect of the HKC, predicts: “This report may come back to haunt the shipping industry if, or more likely when, it becomes evident that the implementation of the [ESRR] has failed.” MIKELIS, *supra* note 34, at 51.

¹⁵⁹ EUR. COMM’N, *supra* note 153; *E.U. Ship Recycling: No Financial Instrument, for Now*, MAR. EXECUTIVE, Aug. 15, 2017, <https://www.maritime-executive.com/editorials/eu-ship-recycling-no-financial-instrument-for-now>.

A. Port State Control: The *Harrier*

The 262-meter *Eide Carrier* was built in 1989 for Soviet shipping on the Black Sea. By 2015 she was essentially derelict, having sat on the pier in Høylandsbygd, Norway, since 2006, awaiting a promised rebuild to serve offshore oil platforms.

In the summer of 2015, an unsigned letter, postmarked in Germany, arrived in Brussels, addressed NGO Shipbreaking Platform.¹⁶⁰ Its anonymous author warned that Norwegian shipowner Eide Marine Services had recently sold an aging barge carrier, the *Eide Carrier*, and the vessel was destined for the breaking yards of the Subcontinent.¹⁶¹ When the Shipbreaking Platform's Norwegian partner organization, Bellona, placed a call to Eide, to remind the shipowner of its legal obligation to dispose of unwanted vessels responsibly, they were reassured that the company had no intention of scrapping the vessel.¹⁶²

Eighteen months passed. On February 22, 2017, the Norwegian Coast Guard responded to a vessel in distress off the rocky coast of Jaeren. She had lost engine power, and was being blown onto the lee shore, where a grounding could result in a massive oil spill. The letter "E"'s in both the first letter of her name and the Eide Marine logo on her smokestack, and been replaced with "T"'s.¹⁶³

Tugs were dispatched to aid the *Tide Carrier*. The crew were evacuated by helicopter, and, after eleven hours of risky salvage, the vessel was pulled safely offshore. The engine failure was attributed to contaminated lubricating oil.¹⁶⁴ The real investigation began.

Supposedly, the *Tide Carrier* was now owned by Julia Shipping, a postbox company in St. Kitts and Nevis, and flagged to the Comoros. Norwegian authorities had given her permission to sail, based on a voyage plan which showed she was bound for repairs in Oman, though port state control officials had found eight deficiencies prior to departure, including five related to safety and emergency preparedness.

The crew and documents onboard gave conflicting information. Some crew said she was bound for Oman, some said Dubai. Some said Pakistan. The insurance policy found onboard, issued by Skuld, indicated that the vessel was insured for only \$6500, for a voyage to Gadani, Pakistan. The name listed as point-of-contact for Julia Shipping was Keyur J. Dave, CFO of Singapore cash buyer Wirana. Perhaps the most interesting discovery came when Norwegian investigators called the Comoros registry. The office disclaimed nationality; the *Tide Carrier* had never been entered in its registry.

Norwegian authorities put the vessel under arrest as explanations for her conflicting documentation multiplied. After dry dock in Oman, the vessel was engaged to serve as a floating warehouse off the coast of Nigeria. Or perhaps Alaska?¹⁶⁵ The cost of insurance for a voyage to Gadani was less than insuring the vessel for its intended voyage (to Oman/Dubai/Nigeria/Alaska). Norwegian officials did not credit this claim of insurance fraud. Falsified class certificates were also presented.¹⁶⁶

Tied up again, whoever owned the vessel painted over the "Tide C" with a plain "H," and flagged the *Harrier* to Palau. Julia Shipping eventually deposited security of 12 million kroner, and the *Harrier*

¹⁶⁰ Heimsvik, *supra* note 81; Press Release, NGO Shipbreaking Platform, *Controversial Tide Carrier Under Arrest in Norway* (April 6, 2017), <https://www.shipbreakingplatform.org/press-release-controversial-tide-carrier-under-arrest-in-norway/>.

¹⁶¹ Heimsvik, *supra* note 81.

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Tide Carrier Nearly Grounded Due to Contaminated Oil*, MAR. EXECUTIVE, Mar. 1, 2017, <https://www.maritime-executive.com/article/tide-carrier-nearly-grounded-due-to-contaminated-oil>.

¹⁶⁵ Daniel Logan Berg-Munch, *Cash Buyer Pays Big Fine for Norwegian Scrap Vessel*, SHIPPINGWATCH, Oct. 14, 2019, <https://shippingwatch.com/secure/carriers/article11685185.ece>.

¹⁶⁶ Marit Nilsen, *NOK 7 Million Fine Issued in the Harrier Case*, Norwegian Maritime Authority, Mar. 10, 2019, <https://www.sdir.no/en/news/news-from-the-nma/nok-7-million-fine-issued-in-the-harrier-case/>.

left Norway again in the summer of 2018, this time bound for breaking in Aliaga, Turkey.¹⁶⁷ At least two crew members had been confined onboard for the duration of the vessel's detention.¹⁶⁸

Økokrim, the Norwegian Authority for Investigation and Prosecution of Economic and Environmental Crime, brought charges against Wirana, as the operating manager of the attempted Gadani voyage of then-*Tide Carrier*. In October 2019, Økokrim assessed a fine of 7 million kroner (\$767,000) issued against Wirana, for two counts of false statement and one of risk of acute pollution.¹⁶⁹ The fine was taken from the security deposited by Wirana in order to secure the vessel's release.

An investigation into insurer Skuld was opened in November 2018,

As of this writing, shipowner Georg Eide faces Økokrim prosecution for environmental crimes related to the *Harrier* case.¹⁷⁰ According to the indictment, hazardous materials onboard the vessel included asbestos, e-waste, and various types of oil or sludge. Eide faces up to two years imprisonment, and Økokrim is also seeking a fine of 3 million kroner from the company he controls. This sum represents the difference in purchase price for the *Harrier* in Pakistan, as compared to the price in Turkey, and Økokrim believes, had the original scrapping plan been successful, Eide Maritime would have realized a 3 million kroner profit for evasion of the EWSR.¹⁷¹

While the outcome of the *Harrier* case may be satisfying, it does not represent a realistic, scalable model for addressing the ship recycling conundrum. As a prosecutor involved with the case note, the discovery of the illegal voyage was serendipitous.¹⁷² The *Tide Carrier* had cleared customs and lawfully departed a Norwegian port. Were it not for the engine failure while still in Norwegian waters, the subterfuge would never have been discovered, or, at least, not have been discovered while Norwegian authorities retained territorial jurisdiction. News coverage suggests that the government's investigation into the vessel's ownership structure was initially motivated by a desire to recoup emergency response costs following the vessel's foundering, not any special curiosity about the legality of the intended voyage.¹⁷³

This article asserts that port state control is a poor enforcement mechanism in the ship recycling context, and argues that the *Harrier* case illustrates that weakness—the exception that proves the rule. Nonetheless, there are some valuable lessons to be drawn from the fortuitous detection of the illegal voyage.

First, NGO Shipbreaking Platform did have advance notice of the potential for illegal export of the *Harrier*, thanks to a still-unknown whistleblower. Norwegian partner organization Bellona contacted shipowner Eide Maritime, but it is unclear whether Norwegian shipping inspectors or law enforcement were made aware of the specific export risk as to the *Harrier*. Better communication and cooperation

¹⁶⁷ Heimsvik, *supra* note 81.

¹⁶⁸ Niklas Krigslund, *Financial Police Enters Case of Detained Ship Headed for Beaching*, SHIPPINGWATCH, Dec. 12, 2017, <https://shippingwatch.com/secure/Offshore/article10137884.ece>; *The Controversial Case of the Harrier*, NGO Shipbreaking Platform, <https://www.shipbreakingplatform.org/spotlight-harrier-case/>, last visited Feb. 2, 2020.

¹⁶⁹ Nilsen, *supra* note 166.

¹⁷⁰ Gerhard Flaaten & Bendik Støren, *Økokrim har Tatt ut Tiltale mot Georg Eide*, [Økokrim has Brought Charges Against Georg Eide], SYSLA, Jan. 8, 2020, <https://sysla.no/maritim/a/kJLgqQ/kokrim-har-tatt-ut-tiltale-mot-georg-eide>.

¹⁷¹ *Id.* Norway is not a member of the EU, but has incorporated the terms of the EWSR and ESRR into domestic legislation. Norwegian Mar. Auth., *Rules Regarding Ship Recycling*, Circular Series R, No. RSR 10-2018, Journal No. 2018/16152, Dec. 19, 2018, at 3, available at <https://www.sdir.no/en/shipping/legislation/directives/new-rules-regarding-recycling-of-ships-and-mobile-offshore-units/>.

¹⁷² Lise Marit Kalstad & Hilde Torgersen, *Sju Millioner i Bot for a Forsoke a Smugle Skandaleskip ut av Norge* [Seven Million in Fine for Trying to Smuggle Scandal Ships Out of Norway], NRK, Oct. 14, 2019, <https://www.nrk.no/rogaland/sju-millioner-i-bot-for-a-forsoke-a-smugle-skandaleskip-ut-av-norge-1.14741210> (quoting State Attorney Tarjei Istad).

¹⁷³ *Ship Arrested in Norway Following Disastrous Flight to Asian Recycling Yard*, WASTE MGMT. WORLD, Apr. 6, 2017, <https://waste-management-world.com/a/ship-arrested-in-norway-following-disastrous-flight-to-asian-recycling-yard>.

between port state control authorities might improve the chances of catching a vessel before she departs on an illegal last voyage.

Second, the Norwegian authorities who boarded the *Tide Carrier* after her engine failure found multiple documentation deficiencies, at least some of which might have been detected by port state control officers prior to her departure. The vessel carried fraudulent Comoros registration and class certification, and her insurance policy manifested an illegal intent for the voyage. Prior to departure, port state control inspectors found eight unspecified deficiencies aboard the *Tide Carrier*, including five related to emergency preparedness and safety.¹⁷⁴ Closer inspection and stricter enforcement of port state control authorities, especially in combination with the advance warning provided by a whistleblower in this case, might have uncovered the shipowner's subterfuge and prevented the departure of the vessel.

Meanwhile, the saga of the *Harrier*, improbably, continues. She finally left Norway on August 1, 2018, bound for the EWSR-compliant recycling facilities in Aliaga, Turkey. She arrived on August 28, and reportedly was brought ashore for recycling on August 31. Before she could be cut up, she was again placed under arrest, this time by Turkish authorities, for suspected discharge of oil near the coastal city of Izmir.¹⁷⁵ Satellite imagery and fuel testing confirmed that the 2.5 km oil slick originated with the unlucky *Harrier*, and her owner, postbox company Julia Shipping, was fined approximately \$300,000, and charged an additional \$4.5 million for cleanup costs.¹⁷⁶ As of November 2019, cash buyer Wirana and the Turkish shipyard had not yet agreed as to who should pay the fines, and the *Harrier* remained in limbo on the Turkish coast, somewhere between death and life.¹⁷⁷

B. Prosecution by the Importing State: The North Sea Producer

The *Maersk Dagmar* launched from the ways in Odense, Denmark, in 1984, as an oil tanker.¹⁷⁸ Thirteen years later, on the Tees river in Northeast England, she was refitted as a floating production storage and offloading (FPSO) vessel and renamed the *North Sea Producer*.¹⁷⁹ Ownership was transferred to North Sea Production Company, a fifty-fifty partnership between Maersk and Brazilian firm Odebracht, and the reborn vessel was projected to have a working life of ten more years.¹⁸⁰

In 2015, the *North Sea Producer* was retired from the North Sea oilfield. In August of that year, she returned to the same English dock where her conversion had taken place, almost twenty years earlier.¹⁸¹ The vessel quickly became a popular local landmark, parked, as she was, just behind the local soccer

¹⁷⁴ *E.U. Ship Recycling: No Financial Instrument, for Now*, *supra* note 159.

¹⁷⁵ Press Release, NGO Shipbreaking Platform, *Investigations on the Harrier Tighten as It Reaches Turkey for Recycling*, Aug. 29, 2018, <https://www.shipbreakingplatform.org/press-release-investigations-on-the-harrier-tighten-as-it-reaches-turkey-for-recycling/>; *Harrier Caused Oil Pollution*, SEANEWS TURKEY, Sept. 10, 2018, <https://www.seanews.com.tr/harrier-caused-oil-pollution/179527/>.

¹⁷⁶ *Harrier Caused Oil Pollution*, *supra* note 175; *Fine for Julia Shipping Over Oil Leakage*, INS. MARINE NEWS, Sept. 12, 2018, <https://insurancemarinenews.com/insurance-marine-news/fine-for-julia-shipping-over-oil-leakage/>.

¹⁷⁷ Ingrid Kristensen, *Bellona Krever Gransking av Harrier Saken [Bellona Requires Investigation of the Harrier Case]*, BELLONA, Nov. 29, 2019, <https://bellona.no/nyheter/skipsfart/2019-11-bellona-krever-gransking-av-harrier-saken>; *Marine Accident Round-Up*, INS. MARINE NEWS, Nov. 1, 2019, <https://insurancemarinenews.com/insurance-marine-news/marine-accident-round-up-1st-november-2019/>.

¹⁷⁸ NORMA J. MARTINEZ, DANWATCH, MAERSK AND THE HAZARDOUS WASTE II 6 (Oct. 2016).

¹⁷⁹ Dave Robson, *North Sea Producer Has Gone from the Riverside to Rusting on a Beach*, TEESIDE LIVE, Oct. 17, 2016, <https://www.gazettelive.co.uk/news/teesside-news/north-sea-producer-gone-riverside-12033913>.

¹⁸⁰ Jeremy Beckman, *Technology, Construction Techniques Driving Fast-Track UK Developments*, OFFSHORE MAG., Aug. 1, 1996, <https://www.offshore-mag.com/home/article/16759481/technology-construction-techniques-driving-fast-track-uk-developments>.

¹⁸¹ Dave Robson, *From the Riverside to a Bangladeshi Beach: How the North Sea Producer Sailed into Stormy Waters*, TEESIDE LIVE, Dec. 27, 2016, <https://www.gazettelive.co.uk/news/teesside-news/riverside-bangladeshi-beach-how-north-12355327>.

stadium.¹⁸² While alongside, the vessel was sold to an offshore post-box company, Conquistador Shipping, re-flagged, from the Isle of Man to St. Kitts and Nevis, and renamed *Producer*.¹⁸³ In the spring of 2016, after several aborted departures, she left the UK under tow, supposedly bound for a new working life in Nigeria.¹⁸⁴ According to internal documents, the nominal owner, Conquistador, had already entered into a \$6.6 million dollar contract with a Chattogram yard.¹⁸⁵ Conquistador was represented by cash buyer GMS.¹⁸⁶

The *North Sea Producer*'s exact route to Chattogram is unknown—the vessel's AIS was apparently turned off before her departure from the UK—but unconfirmed sightings were reported in the Netherlands and Kenya.¹⁸⁷ In August 2016, she was driven up onto the Bangladeshi beach.¹⁸⁸ Danish reporter Norma J. Martinez was on the scene shortly after the vessel arrived:

“That is a difficult ship to cut,” says an older worker On the deck . . . is both a helicopter landing pad and a large crane. Aside from these, [] the ship looks similar to the other giant ships stranded at the Janata Steel shipyard in Chittagong, Bangladesh.

“No, no, it's very different from the other ships.” The worker attempts to explain, but the expla[nation] gets lost in translation. Finally, the worker accepts defeat in the face of his and the translator's limited technical vocabulary and says simply, “There are many, many pipes. Oil ship.”¹⁸⁹

This Chattogram veteran is right: for any scrapper, an FPSO like the *North Sea Producer* is a *very* different ship. Back in Denmark, a shipyard manager told Martinez that decommissioning an FPSO “involves totally different and much greater requirements with respect to safety, cleanup, and the environment. It's a much bigger job to cut up a ship like that than a container ship. There are more technical systems, pipes and inventory.”¹⁹⁰ But it's not just the additional complexity of the former oil platform's systems that make it such a challenge: “we can't manage it in Denmark, because we have nowhere to dispose of the radioactive material that can be present on a ship like that.”¹⁹¹ After seventeen years on station, the storage, production, and transportation systems of an oil extraction unit like the *Producer* may be coated in naturally occurring radioactive material (NORM).¹⁹² NORM is present, to varying levels, in petrochemicals, and accumulates in the mineral scale coating extraction and storage systems. The oil fields of the North Sea are known for their relatively high levels of radioactive material.¹⁹³

¹⁸² *Id.*

¹⁸³ Gibbs, *supra* note 79.

¹⁸⁴ “The ship . . . will be towed nearly 5,000 nautical miles by the 75m sea tug *Terasea Eagle* to the Tincan Island port complex in Lagos, Nigeria.” Mike Brown, *That Big Ship Next to the Riverside? It's on the Move—But it's not Exactly Clear Why*, TEESIDE LIVE, May 17, 2016, <https://www.gazettelive.co.uk/news/teesside-news/big-ship-next-riverside-its-11344358>.

¹⁸⁵ Gibbs, *supra* note 79.

¹⁸⁶ *Id.* This was reportedly a record price for a Chattogram breaking contract. *HC Wants Assessment Reports on Radioactive Material of Chittagong Scrap Vessel*, DAILY STAR, June 8, 2017, <https://www.thedailystar.net/city/hc-wants-assessment-reports-radioactive-material-scrap-vessel-1417489>.

¹⁸⁷ Niels Lykke Møller, *Bogstaverne er Skrabet af Men den er God Nok: Her er det Danske Skib [The Letters are Scrapped Off, but it is Plain Enough: Here is the Danish Ship]*, Tv2, Oct. 16, 2016, <https://nyheder.tv2.dk/udland/2016-10-16-bogstaverne-er-skrabet-af-men-den-er-god-nok-her-er-det-danske-skib>.

¹⁸⁸ MARTINEZ, *supra* note 178, at 7-8.

¹⁸⁹ *Id.* at 16.

¹⁹⁰ *Id.* at 19.

¹⁹¹ *Id.* at 18.

¹⁹² NGO SHIPBREAKING PLATFORM, RECYCLING OUTLOOK: DECOMMISSIONING OF NORTH SEA FLOATING OIL & GAS UNITS 30 (2019).

¹⁹³ *Id.*

Nevertheless, barefoot men with scarves wrapped around their faces began cutting the *Producer* on the Chattogram beach. Repon Chowdhury, Executive Director of NGO Bangladesh Occupational Safety, Health and Environment Foundation, reported that Chattogram yard owner Janata “intentionally cut down the front and back parts of this ship as part of [measures to] eliminate name and IMO number (usual tactic).”¹⁹⁴

Following the Danish expose, domestic and international pressure was brought to bear.¹⁹⁵ By November 5, 2016, the Bangladeshi Department of Environment had issued an injunction to halt the breaking pending inspection by a specially formed expert body, including representatives from the national Nuclear Energy Commission.¹⁹⁶

Bangladesh Environmental Lawyers Association (BELA) filed a writ for petition with the High Court Division of Bangladesh’s Supreme court, and, in June 8, 2017, a new injunction was issued by that court, preventing further breaking activity, requesting additional investigation of the radioactive vessel, additionally asking environmental regulators to file briefs explaining why the 2016 import of the vessel should not be ruled illegal.¹⁹⁷ The high court’s final ruling came down on November 14, 2019: the *Producer*’s import violated the terms of domestic and international law.¹⁹⁸ The breaking of the ship would be completed under government supervision, without the involvement of the importing yard, Janata Steel. Janata would bear financial responsibility for the illegal import. Additionally, the High Court directed Bangladeshi regulators to exercise stricter scrutiny over the import of vessels by cash buyers and under “last voyage” gray or black-listed flags, and to ensure that no vessel is imported without proper verifiable pre-cleaning certificates and an IHM.¹⁹⁹ As of the November 2019 High Court verdict, British investigations into the legality of the *Producer*’s export were ongoing.²⁰⁰

This legal outcome may be encouraging, but the radioactive *Producer* still sits on the Chattogram beach, and it remains to be seen how her safe demolition will be accomplished and funded. The extraordinary legal response was occasioned by an extraordinary beaching. First, the *Producer*’s radioactivity is attention-grabbing in a way that asbestos and other more pedestrian carcinogens are not. Second, the vessel was closely tied to a high-profile company (Maersk), headquartered in Northern Europe, the hotbed of anti-beaching activism. And, third, international journalists got to the beach shortly after the ship did. Hopefully, the High Court ruling will have some effect on the environmental and industrial regulators as low-profile vessels continue to arrive in Chattogram.

For its part, Maersk has expressed regret over the ignominious fate of the *ex-Dagmar Maersk*, while insisting that ultimate responsibility lies with the vessel’s owner at the time of her scrapping—post-box

¹⁹⁴ Quoted by Laurie Kazan-Allen, *The Asbestos Hazard in Shipbreaking*, INTERNATIONAL BAN ASBESTOS SECRETARIAT, May 2017, <http://ibasecretariat.org/lka-the-asbestos-hazard-in-shipbreaking.php>.

¹⁹⁵ Syeda Rizwana Hasan, chief advocate of Bangladesh Environmental Lawyers Association (BELA), cited the Danish news coverage as the precipitating factor in public scrutiny of the *Producer* case. *HC Wants Assessment Reports on Radioactive Material of Chittagong Scrap Vessel*, *supra* note 185.

¹⁹⁶ *Body Formed to Probe Scrap Vessel*, DAILY STAR, Nov. 6, 2016, <https://www.thedailystar.net/backpage/body-formed-probe-scrap-vessel-1310149>.

¹⁹⁷ *HC Wants Assessment Reports on Radioactive Material of Chittagong Scrap Vessel*, *supra* note 185; *Workers in Flip-Flops Dismantling Radioactive FPSO*, OFFSHORE ENERGY TODAY, June 14, 2017, <https://www.offshoreenergytoday.com/workers-in-flip-flops-dismantling-radioactive-fpso/>.

¹⁹⁸ *No Ship can be Imported Violating Conditions of Environmental Certificate: HC*, DAILY STAR, Nov. 14, 2019, <https://www.thedailystar.net/country/no-ship-can-be-imported-violating-conditions-environmental-certificate-1827079>.

¹⁹⁹ *Id.*; *NGOs Win FPSO North Sea Producer Shipbreaking Case*, MAR. EXECUTIVE, Nov. 20, 2019, <https://www.maritime-executive.com/article/ngos-win-fpso-north-sea-producer-shipbreaking-case>. No published version of the High Court judgment is currently available on the Court’s website, but the case is listed as Writ Petition 8466/2017; Dave Robson, *Messy End for Ship Whose Sheer Size and Proximity to Riverside Made it a Matchday Fixture*, TEESIDE LIVE, Nov. 24, 2019, <https://www.gazettelive.co.uk/news/teeside-news/messy-end-ship-whose-sheer-17307796>.

²⁰⁰ See Robson, *supra* note 199 (“the UK’s Department for Environment, Food and Rural Affairs is still investigating how [the *Producer*] ended up on a Bangladeshi beach”).

company Conquistador.²⁰¹ Considering that the nominal vessel “owner” at the time of the *Producer’s* transfer to Janata Steel was an offshore shell company, represented by cash buyer GMS, and the market conditions at the time of the sale, journalists and anti-beaching activists have expressed skepticism as to Maersk’s claims that it did not know the vessel was bound for the beaches of South Asia when it left Teesside.²⁰²

C. Piercing the Flag State Veil: The Seatrade Case

As discussed above, “flagging-out” is the perennial loophole of shipbreaking regulation. The law of the flag State determines shipowner liability for vessel disposal. Many flag States are unlikely to ratify the Hong Kong Convention or the Basel Ban Amendment, and even those that do subscribe may lack the will and/or means to take enforcement actions against shipowners. The use of cash buyers, who purchase condemned vessels from their final commercial owner and then handle the transfer to a breaking yard, provides an additional layer of legal protection to shipowners skittish of legal or reputational liability for substandard breaking, or, so, at least, everyone thought.

On March 8, 2012, Dutch-Belgian shipowner and operator Seatrade decided to decommission a class of four refrigerated cargo vessels, the *Spring Bear*, the *Spring Bob*, the *Spring Deli*, and the *Spring Panda*, all constructed in 1984.²⁰³ The next day a Seatrade executive sent an internal group email, listing action points, including compilation of “a list of all things to be taken off board,” and evaluation of “a possible change of flag for sale in connection with ‘the position in ranking on North Sea Platform scrapping list.’”²⁰⁴

Preparations began: maintenance and inspection schedules were modified, so as to minimize costs, and plans were made to remove navigational equipment, spare propellers, and portraits of Queen Beatrix from the Spring vessels.²⁰⁵ On April 9, 2012, a Seatrade employee sent an internal email, providing an update on projected proceeds from the Spring scrap sales. The email’s author, identified in court papers as employee S., provided a comparison of the scrap prices available in Fujairah, United Arab Emirates, with the much higher per-ton bids available from beaching yards in India: “The latest deals based on delivery in its current state at Fujairah reportedly cost about US\$15/[light displacement ton]. For a Spring type this would mean 15 x 8,000 = US\$120K lower gross proceeds.”²⁰⁶ Employee S. adjusted this \$120,000 per-vessel responsible-breaking surcharge down, to account for the additional operational and agency costs associated with sailing the vessels to India for demolition, and arrived at a price differential of \$70,000 per

²⁰¹ See *Maersk Group says it was “cheated” over final destination for North Sea Producer FPSO*, ENERGY VOICE, Feb. 11, 2016, <https://www.energyvoice.com/oilandgas/north-sea/123274/maersk-oil-says-cheated-final-destination-north-sea-producer-fpsol/>; *Maersk Regrets Shipbreaking Outcome*, REUTERS, Oct. 22, 2016, <https://www.maritime-executive.com/article/maersk-regrets-shipbreaking-outcome>; A.P. Moller-Maersk Response to Joint Communication from Special Procedures (AL OTH 6/2018), Mar. 20, 2018, available at https://www.maersk.com/~media_sc9/maersk/news/news/files/2019/10/response-by-a-p-moller_oct-25_v1.pdf.

²⁰² See *Maersk’s Toxic Trade: The North Sea Producer Case*, NGO SHIPBREAKING PLATFORM, <https://www.shipbreakingplatform.org/spotlight-north-sea-producer-case/>, last visited Feb. 20, 2020; MARTINEZ, *supra* note 178. Journalist Margot Gibbs, *supra* note 48, details another European shipbreaking case implicating shell company Conquistador.

²⁰³ *Staat v. X (“The Seatrade Case”)*, NJFS 2018, 180 (Rb. Rotterdam, Neth. 15 maart 2018). Citations and quotations to English translation, available online: <<https://www.rechtspraak.nl/Organisatie-en-contact/Organisatie/Rechtbanken/Rechtbank-Rotterdam/Nieuws/Documents/English%20translation%20Seatrade.pdf>>.

²⁰⁴ *Id.* The North Sea Foundation is a Dutch environmental group, and member of the anti-beaching NGO Shipbreaking Platform. NGO SHIPBREAKING PLATFORM, *supra* note 25. Presumably the “North Sea Platform scrapping list” refers to publicity campaigns by North Sea Foundation/Shipbreaking Platform.

²⁰⁵ *The Seatrade Case*, at 8-9.

²⁰⁶ *Id.* at 9.

Spring class vessel. The question posed to the higher-ups: “Would it be worth 5 x 70K = 350K not to end up on the name and shame list?”²⁰⁷ There might be a less expensive option:

Alternatively, would it be possible to change ownership quickly, for example in the Persian Gulf, before the ship sails to Alang? *It would have to be a flag state that does not require inspections or anything else.*

Is that possible, what would it cost? The Indian owner of the *Viking Star* is said to have switch from a flag state to the Comoros. We would, of course, need the name of the new owner because, as seller, he would have to enter into the contract with the scrappers. Please let me know your thoughts about this.²⁰⁸

Another employee, L., responded: “For changing flag and setting up [new] companies we have to assume at least €20,000 (US\$25,000) per ship.”²⁰⁹ Employee S. updated the calculations for operational costs, and factoring in the re-flagging expenses, arrived at a new figure: “USD 37k per ship = 5 ships x 37 = total USD 185k investment not to end up on the list. Would you please substantiate/state whether that means that we are selling in ... Fujairah or not?”²¹⁰

The *Spring Bear* sailed from Rotterdam on April 15.²¹¹ The first scheduled stop would be in Egypt, but the crew was told the vessel’s real destination was Alang beach.²¹²

The following month, on May 12, the Dutch Living Environment and Transport Directorate Inspectorate placed a telephone call to Seatrade.²¹³ The investigating agent told Seatrade that the agency had heard that *Spring Bear* might be exported to India, for scrapping. The Seatrade executive on the call denied any such plan and assured the agent that Seatrade was familiar with the requirements of the EWSR.²¹⁴

Meanwhile in Alexandria, *Spring Bear* loaded a cargo of fruit, for delivery to Iran.²¹⁵ By now all four Spring class vessels were on their way to the breakers, and their captains and engineers were operating on strict orders to minimize expenditures on bunkers and other necessities. Shoreside management emailed the captain of the *Spring Deli*:

[Do] not count on a reserve for the reserve. Really sail on the minimum, because every ton still in there on arrival at the beach is a waste of money...

[R]emember that we want to transfer the ships with a minimum of bunkers and lubricating oil, so please order accordingly, and if you need to sail with economical consumption, do so, let the auxiliary fans run if that helps to cut costs. It doesn’t matter if there is a chance that one will break or that the engine will emit pollution.²¹⁶

Back in Europe, Seatrade employees prepared the financial and legal particulars to transfer ownership in advance of *Spring Bear*’s arrival in India. It was decided that the transfer would take place when the vessel stopped in the UAE, what would be her last port of call. Seatrade emailed the *Spring Bear*’s captain on May 30, to notify him of the anticipated change in ownership: “This is a paper act required for

²⁰⁷ *Id.*

²⁰⁸ *Id.* (emphasis added).

²⁰⁹ *Id.*

²¹⁰ *Id.* at 9 (emphasis added).

²¹¹ *Id.* at 7.

²¹² *Id.* at 10.

²¹³ *Id.*

²¹⁴ *Id.*

²¹⁵ *Id.* at 7.

²¹⁶ *Id.* at 13.

the last voyage ... The reason for the transfer of management is just because of the paperwork; in practice nothing will change. We will remain your point of contact and the crew will stay on board until they reach their final destination.”²¹⁷ The “paper” ownership transfer took place the same day, for a stated purchase price of \$1 million.²¹⁸

With the vessel under “new” ownership, negotiation for the real sale could be concluded. A price of \$3,184,959.99 was agreed, delivery at Alang, India, where “the seller will assist in beaching the vessel at the scrapping yard indicated by the buyer.”²¹⁹

On June 12, 2012, the scrap buyer paid the balance of the purchase price, and Seatrade employee L. emailed the *Spring Bear* captain, informing him of the sale’s conclusion. Employee L. instructed the master “to follow the buyer/agent’s instructions to beach the ship,” and to let L. know as soon as the vessel had been beached.²²⁰ By June 13, the *Spring Bear* was on Alang beach.²²¹

Spring Bob met the same fate in Chattogram, Bangladesh, after sailing in ballast from Rotterdam.²²² On their final voyages, *Spring Deli* and *Spring Panda* carried cars from Antwerp, Belgium, to Al Khums, Libya, before winding up on the beach in Aliaga, Turkey.²²³ NGO Shipbreaking Platform included the four vessels on its “2012 Annual List of Ships Scrapped Worldwide.”²²⁴ On the NGO list, Seatrade Holding B.V. is listed as the beneficial owner of each vessel. The list reports that *Spring Bear*’s last registered owner was Spring Bear Shipping Co., S.A., and that she was Liberian-flagged.²²⁵

Compare this sequence of events to the semi-satirical instructions to shipowners laid out by *Lloyd’s List* columnist Andrew Craig-Bennet, back in 1998:

Now, here is some simple, free, advice ... In future, please do as others, more experienced in these matters, do;

like this:—1. Ring your broker and tell him that you want to sell the ship for further trading, on “simple terms.” If he is up to his job, he will understand you to mean that you want to sell the ship to a scrap speculator.

Curiously, most of these gentlemen live in London anyway, although they seldom like to hog the limelight.

2. The buyer will then ring his lawyers and buy a Liberian shelf company on bearer shares.²²⁶

3. You sell the ship to the new company. One of the “simple terms” is that the ship’s name and funnel marks are changed. You have now sold a viable, trading, ship, with certificates for at least another week, from your high profile company in the OECD to an obscure company in an African nation outside the OECD. You have not breached the Basel Convention.

4. The speculator then does what he is best at, which is to sell the ship for breaking.

²¹⁷ *Id.* at 11.

²¹⁸ *Id.* For another behind-the-curtain look at scrapping contracts, see Gibbs, *supra* note 49 (describing leaked sales contract between Spanish shipowner Cepsa and shell company Conquistador Shipping, an alter ego for cash buyer GMS).

²¹⁹ *The Seatrade Case*, at 11.

²²⁰ *Id.*

²²¹ *Id.*

²²² *Id.* at 7.

²²³ *Id.*

²²⁴ 2012 Annual List of Ships Scrapped Worldwide (spreadsheet), available at <https://www.shipbreakingplatform.org/wp-content/uploads/2018/2012-List-of-all-ships-dismantled-all-over-the-world.xlsx>. The *Spring Bob* seems to appear on the list under the name *Spring*, as that vessel matches the *Spring Bob* in all other particulars.

²²⁵ *Id.* *Spring Bob* was Comoros-flagged when scrapped in Bangladesh. *Spring Deli* and *Spring Panda* were Curacao and Dutch-flagged, respectively, at the time of their demolition.

²²⁶ “The principal way in which an [vessel]’s ownership may be hidden through the use of bearer shares which, unlike normal registered shares, do not carry the name of the owner and may be transferred from person to person without money changing hands or details of the transfer being registered.” Galley, *supra* note 24, at 105.

All these functions can be carried out, by experts of high professional standing, within half a mile of your office doors. That is why London is a shipping centre.

The ship will still end up in India, she will still get broken up, and the breakers' workforce will not be out of employment. The Basel Convention, on the other hand, will have been observed precisely.²²⁷

Seatrade seemed to have followed Craig-Bennett's advice, albeit from Antwerp rather than London; the price had been paid, the paper companies registered, the vessels re-flagged, the name-and-shame list avoided, the letter, if not the spirit of the EWSR observed. Or had it been?

The Dutch public prosecutor brought a novel case against Seatrade and three of its executives, alleging that the final voyages of the Spring vessels had been an export of hazardous waste in violation of the EWSR, and seeking a fine of €2.35 million, confiscation of profits made on the *Spring* scrapping contracts, and six-month prison sentences for the three individual defendants.²²⁸

The main legal question before the Rotterdam District Court was whether the vessels, three of which carried cargo for some portion of their final voyage, could be considered "waste" under the EWSR. Seatrade argued the vessels were not waste, because, at the time they left Europe, the vessels were "seaworthy, certified[,] insured [and] operationally deployable."²²⁹ The court rejected this argument— "[a]lthough these circumstances, taken separately and in combination, may constitute an indication that no waste is involved, they are not decisive in determining whether a waste is involved."²³⁰ The determinative question is as to the intent to dispose, which must be evaluated in the totality of the circumstances. The court found that, in light of the EWSR's objective to protect public health and the environment, the definition of "disposal" should not be given a restrictive interpretation.²³¹

On March 15, 2018, the court shocked many in the shipping industry by convicting Seatrade and two of the three individual defendants.²³² The court held that Seatrade intended to dispose of the ships at the time they left Europe, in violation of the EWSR.²³³ The court described the "paper" sale as a transaction which, "in the context of the exchanged messages, only seems to have been aimed at preventing entry on the 'name and shame list' by reflagging the ship before it was handed over for scrapping."²³⁴ Evaluating the blameworthiness of one of the two convicted executives, the court observed that he had "turned a blind eye" to the health and safety risks of beaching the vessels.²³⁵ "In his considerations, he apparently only took account of the business interests of the companies for which he was responsible. The warning issued by the

²²⁷ Andrew Craig-Bennett, *Shipbreaking: Oh Dear*, LLOYD'S LIST (1998), available at [http://archive.ban.org/library/ship breaking_oh_dear.html](http://archive.ban.org/library/ship%20breaking_oh_dear.html). Craig-Bennett wrote in response to public outcry over the breaking of a P&O Nedlloyd vessel. *Id.*

²²⁸ *Dutch Court to Hear Shipbreaking Case Against Seatrade*, MAR. EXECUTIVE, Feb. 13, 2018, <https://www.maritime-executive.com/article/dutch-court-to-hear-shipbreaking-case-against-seatrade>.

²²⁹ *Staat v. X ("The Seatrade Case")*, NJFS 2018, 180 (Rb. Rotterdam, Neth. 15 maart 2018), at 15.

²³⁰ *Id.*

²³¹ *Id.* at 17. This is consistent with other judicial interpretations of the EWSR. "In EU law, as interpreted by the European Court of Justice, the distinction between waste and non-waste is ... guided by the principles of precaution, prevention and high level of environmental protection, which excludes a narrow delimitation of the notion of waste." Ormond, *supra* note 82, at 17.

²³² See Cedric Ryngeart & Lukas Waardenburg, *Tackling Extra-Territorial Ship-Breaking: From the EU Waste Shipment Regulation to the EU Ship Recycling Regulation—Reflections After the Rotterdam District Court's Judgement in SeaTrade*, 24 J. INT'L MAR. L. 226, 226 (2018).

²³³ "[T]he true intention of the holder must be given decisive significance and, as can be seen from that set out above, the intention was to dispose of the ships. The circumstance that three of the ships were still in commercial service and carried a cargo during part of the voyage to their final destination does not alter this." *The Seatrade Case*, at 16.

²³⁴ *Id.* at 21.

²³⁵ *Id.* at 25.

Environmental and Transport Inspectorate on 08 May 2012 ... also did not prevent him or his co-defendants from committing the offences.”²³⁶

The company and executives were fined €750,000. The court declined to impose any prison time, instead banning the two individuals from participating in the shipping industry for twelve months.²³⁷

After the verdict, Seatrade spokesman Cor Rading maintained, “when the ships were here, [] they were sea worthy, they had all the certificate[s] and could not be considered waste. There is a difference of opinion about whether the decisions to recycle the ships were made in the European Union or not. We think they weren’t. They were in international waters.”²³⁸ The conviction is on appeal.²³⁹ Even if the Seatrade opinion overturned, its effect has been considerable. Seatrade chief executive Yntze Buitenwerf was interviewed by *Lloyd’s List* after the verdict, and he said he found it laughable that the prosecution had expended so much energy to determine whether the Spring scrappings were “intentional”:

“Now the whole world is shaken up, because everyone that has scrapped a ship in the last six years must have had an intention to scrap a ship. It is not like you pass the beaches of Alang and say: ‘Hey, look at this nice beach. Let’s beach her,’” said Mr. Buitenwerf. “The jails would be full of shipowners right now if you apply the same ruling where we have been the only ones singled out” ... Seatrade has learnt its lesson, though, and vigilance is top of the agenda. “We now make sure we are aware of the enemy around the corner,” said Mr. Buitenwerf.²⁴⁰

In the aftermath of the Seatrade verdict, shipping lawyer Johannes Grove warned European shipowners,

They’re keeping an eye on which ships end up on the beaches. A shipping company may have sold its ship to a cash buyer, which has changed its flag as well as name. But if a ship was owned by a European shipping company two or three months before arriving at a beach, the case will be scrutinized. . . . It’s not unlikely that authorities will go in and demand to see emails, contracts and the like. And if there are emails dating back to before the departure from Europe, which mention having as little bunker oil as possible, because the ship is expected to be scrapped when it arrives, I don’t think they’ll be able to dodge it, no matter what the practice has been so far.²⁴¹

In January 2019 another Dutch shipowner, Holland Maas, settled with the Dutch prosecutor for €2.2 million, in addition to a fine of €780,000, for the export and scrapping of the *HMS Laurence*.²⁴² She was sold to a cash buyer in 2013, and ended up on Alang Beach, and the settlement amount reflected the earnings realized by Holland Maas for the sale.²⁴³ The master of the *Laurence* was subject to a Dutch merchant marine disciplinary action, for his role in the illegal scrapping.²⁴⁴ The maritime disciplinary

²³⁶ *Id.*

²³⁷ *Id.* at 26. The court found imprisonment unwarranted where this prosecution was the first of its kind. *Id.*

²³⁸ Quoted by Tomas Kristiansen, Daniel Logan Berg-Munch & Katrine Grønvald Raun, *Two Seatrade Execs Convicted for Scrapping Four Ships*, SHIPPINGWATCH, Mar. 15, 2018, <https://shippingwatch.com/secure/carriers/article10419626.ece>.

²³⁹ Mikelis, *supra* note 138.

²⁴⁰ Linton Nightingale, *Seatrade Made a Scapegoat in EU Scrapping Verdict*, LLOYD’S LIST, June 4, 2018, *reprinted in* SIMPLY SEATRADE, June 2018, at 25.

²⁴¹ Quoted by Niklas Krigslund, *Shipping Companies Risk Tough Penalties for Shipbreaking*, SHIPPINGWATCH, Mar. 21, 2019, <https://shippingwatch.com/secure/carriers/article11267227.ece>.

²⁴² *Another Dutch Shipowner Fined for Beaching a Vessel*, MAR. EXECUTIVE, Jan. 21, 2019, <https://www.maritime-executive.com/article/another-dutch-shipowner-fined-for-beaching-a-vessel>.

²⁴³ *Id.*

²⁴⁴ *Minister of Infrastructure & Environment in The Hague v. M.N.*, Ruling 5 of 2015, No. 2015.V6, Maritime Disciplinary Court of the Netherlands (Tuchtcollege voor de Scheepvaart), (*HMS Laurence*) (official English

court of the Netherlands found that the *Laurence* master had breached his duty of care as master, in violation of Dutch law, by knowingly participating in the beaching of the vessel in Alang.²⁴⁵ Because this case was the first disciplinary action brought against a Dutch mariner for participating in a beaching, the court issued a deferred six-month suspension, amounting to a probationary period.²⁴⁶

An extensive, if not exhaustive, survey of legal scholarship on the modern shipbreaking problem revealed only one article hypothesizing an EWSR prosecution for export of a vessel by means of out-flagging and sale to a cash buyer. Social science research from Fifteen years ago, Darren Wall and Michael Tsimplis theorized that a scrapping contract might be rendered unenforceable under English law by a showing of illegality.²⁴⁷ Wall and Tsimplis cabin their analysis by observing that such a finding of contractual illegality, based on criminal violation of the EWSR, will only come to light if a party seeks to enforce (or void) the contract in an English court.

The Seatrade opinion, if it is sustained on appeal, may complicate shipowners' calculations going forward. To establish that Seatrade had formed an intention to scrap the Spring class prior to the vessels' departure from European waters, the Rotterdam court considered internal emails, removal of non-essential equipment, and instructions to minimize vessel maintenance, inspection, and restocking. Add to this Wall and Tsimplis' suggestions: age of the vessel, price relative to second-hand market, particulars of the bill of sale. To avoid creating this class of evidence, shipowners will need to delay any preparations for decommissioning until the vessel has left European waters. The current legal climate, combined with the limited capacity and low bids of the European List scrapping yards may incline European shipowners to avoid decommissioning their vessels at almost any cost, and rather find a non-European bona fide owner to continue operating the vessel, for some respectable period of time.

Considering the recent entry-into-force of the ESRR, which supersedes the EWSR, the direct precedential impact of the Seatrade decision will be limited. However, the willingness of the Dutch court to work backward through the final flag and final owner, to find liability in the European corporate owner who had tried to skirt the limits of regional environmental regulation is significant. Prior to the Seatrade Case, even sympathetic business and legal scholars believed the EWSR could be reliably avoided by delaying any official declaration of the intent to discard until after the vessel had left European waters, and that the ESRR would be almost as easily avoided.²⁴⁸

At time of writing, the Danish Environmental Protection Agency is investigating Maersk's out-flagging and subsequent Alang scrapping of four vessels.²⁴⁹ The vessels in question were re-flagged to Hong Kong in 2018, and scrapped in the spring of 2019. Maersk maintains that the decision to scrap the vessels was taken after re-flagging and while the vessels were in international waters, and was therefore

translation). The master apparently posted a YouTube video of the *Laurence* beaching, which came to the Dutch government's attention and occasioned the disciplinary action against his license. *Id.* at 3-4.

²⁴⁵ *Id.* at 6.

²⁴⁶ *Id.* at 6-7. See also Thomas van Hövell, *Master Receives Deferred Suspension*, INT'L L. OFFICE, Dec. 23, 2015, <https://www.internationallawoffice.com/Newsletters/Shipping-Transport/Netherlands/AKD/Master-receives-deferred-suspension-for-illegal-beaching-of-vessel#> ("the beaching for subsequent demolition of ships moved from the European Union to Southeast India places the master of such ships at risk of suspension if the physical breach of national and European law has been performed under the authority of such master. Posting a recording of the beaching of such vessels on YouTube clearly increases the risk of detection and suspension.").

²⁴⁷ *Selling Ships for Scrap*, LLOYD'S MAR. & COM. L.Q. (May 2004), at 254, 262.

²⁴⁸ The ESRR, like the EWSR before it "could not be applied to non-EU-flagged vessels." Cairns, *Return to Chittagong*, *supra* note 27, at 342. "Leaving port before a decision to scrap the ship has been formally taken avoids the controls of the ... Ban Protocol." Tsimplis, *supra* note 135, at 420. Frank Stuer-Lauridsen, CEO of consulting firm Litehauz, told *ShippingWatch* "it's impossible to prove that a company is re-flagging in order to circumvent the regulations, even though it might look conspicuous. This is the same issue that applies to the Basel convention, where one has to prove that a shipping company intends to scrap the ship before it leaves OECD waters. This is, in effect, not possible." Krigslund, *supra* note 152.

²⁴⁹ Niklas Krigslund, *Maersk Responds to Authorities in Case About Re-Flagging of Vessels*, SHIPPINGWATCH, Jan. 28, 2020, <https://shippingwatch.com/secure/regulation/article11903994.ece>.

legal under both the EWSR and the Basel Convention.²⁵⁰ In Norway, Økokrim is investigating Teekay Shipping's 2018 scrapping of the *Navion Britannia* in Alang for possible waste export law violations.²⁵¹ The *Navion Britannia* case is notable because Teekay, a member of the industry Ship Recycling Transparency Initiative, made extensive, public efforts to audit and monitor the Alang yard for responsible ship recycling practices.²⁵² Reports suggest authorities in the United Kingdom, Germany, and Belgium are also interested in pursuing scrapping-export prosecutions.²⁵³

D. Direct Tort Actions: The *Eurus London*

Mohamed Edris, aged thirty-eight, worked as a metal cutter on the beaches of Chattogram, Bangladesh.²⁵⁴ He showed up to work early on the morning of April 11, 2015, as he had six days a week since coming to Chattogram at age fourteen. That morning, Edris was one of some hundred workers dismantling the 19,600-ton container ship *Eurus London*, and his supervisor directed him to cut the vessel's forty-ton propeller down from the hull, using a blowtorch, onto a makeshift metal platform. Edris did not want to do it; he was afraid the propeller would rebound off the platform and injure him, but when his protests were ignored, he lit up his torch and started cutting. The massive propeller hit the metal platform, and then careened into Edris, just as he had feared. Its metal edge amputated his left leg below the knee. His back was seriously injured, and he was blinded in one eye.²⁵⁵ Edris was taken to a nearby hospital, but his employer, Fedrous Steel yard, refused to pay for needed surgery.²⁵⁶ The NGO Shipbreaking Platform prevailed upon local industry contacts, and Edris was operated upon.²⁵⁷ Edris, a skilled and experienced metal cutter, had earned the equivalent of £3.20 a day, and supported seven family members.²⁵⁸ He eventually received the equivalent of £1.142 in compensation from his employer, and £4.32 a week for nine months, but, unable to work, he and his family were left destitute.²⁵⁹

Edris's injury was not, sadly, unusual, but the outcome of his story is. The Shipbreaking Platform obtained counsel for Edris, from the UK firm Leigh Day, and Edris filed a first-of-its-kind lawsuit against the British owner of the *Eurus London*, Zodiac Maritime.²⁶⁰ The suit was filed on a negligence theory:

²⁵⁰ *Id.*

²⁵¹ *Norwegian Authorities Investigate Teekay Subsidiary Over Shipbreaking*, MAR. EXECUTIVE, Jan. 31, 2020, <https://www.maritime-executive.com/article/norwegian-authorities-investigate-teekay-subsidiary-over-shipbreaking>.

²⁵² *Id.* See also, *Promoting Responsible Ship Recycling*, TEEKAY, Mar. 20, 2019, <https://www.teekay.com/blog/2019/03/20/promoting-responsible-ship-recycling/> (featuring photograph of *Navion Britannia* on the beach).

²⁵³ Ole Andersen, *Several European Scrapping Cases Could Break Out*, SHIPPINGWATCH, Feb. 14, 2018, <https://shippingwatch.com/secure/carriers/article10309769.ece>.

²⁵⁴ John Vidal, *"This is the World's Cheapest Place to Scrap Ships"—But in Chittagong, It's People who Pay the Price*, GUARDIAN, Dec. 2, 2017, <https://www.theguardian.com/global-development/2017/dec/02/chittagong-shipbreaking-yards-legal-fight>. For an earlier interview with Edris, made prior to filing of his lawsuit, see Niels Lykke Møller & Mikkel Secher, *Mohammed Ophuggede Mærsk's Skibe på Berygtet Strand: Vi Løb en Stor Risiko Eele Tiden [Mohammed Scrapped Maersk's Ships on the Notorious Beach: We Ran a Huge Risk All the Time]*, TV2, Oct. 17, 2016, <https://nyheder.tv2.dk/udland/2016-10-17-mohammed-ophuggede-mærsk-s-skibe-paa-berygтет-strand-vi-loeb-en-stor-risiko-hele> (video clip and article). Edris told these Danish journalists that he had worked on the breaking of two Maersk vessels in Chattogram, several months before his injury. *Id.*

²⁵⁵ Vidal, *supra* note 254.

²⁵⁶ *Severely Injured While Scrapping a British-Owned Vessel—Worker Edris Receives No Medical Support from the Yard Owner*, 6 NGO SHIPBREAKING PLATFORM S. ASIA Q. UPDATE, 3, 3-4 (2015).

²⁵⁷ *Id.*

²⁵⁸ Vidal, *supra* note 254.

²⁵⁹ *Id.*

²⁶⁰ *Id.* See also, *Legal Action Against London-Based Shipping Company Following Life-Changing Injuries*, LEIGH DAY, Dec. 4, 2017, <https://www.leighday.co.uk/News/News-2017/December-2017/Legal-action-against-London-based-shipping-company>.

Zodiac knew, or ought to have known, that there was a foreseeable risk of physical harm to workers when they allowed their vessel to be sold to a Chittagong yard through a cash buyer ... They had a duty not to sell vessels to Bangladesh shipyards via their contractors or cash buyers.²⁶¹

Zodiac initially denied all liability, in a statement to the press, saying the accident occurred four months after Zodiac sold the vessel: “The yard where Mr[.] Edris was employed was not Zodiac’s contractor and Zodiac did not select the yard used to dismantle the vessel. Zodiac has no control over the working practices at shipbreaking yards.”²⁶²

Within the month, a private settlement had been reached, “to the satisfaction of the worker.”²⁶³ A Shipbreaking Platform spokesperson said the group hoped to repeat this success and that a number of similar cases were under review for legal action.²⁶⁴ Shipping lawyers at the London office of Holman Fenwick Willan warn, “the case suggests that even with the involvement of an intermediary cash buyer, a determined and financed claimant could at least create litigation risk for an owner.”²⁶⁵

While the case was clearly a success for Edris and his family, and a public relations coup for the Shipbreaking Platform and Leigh Day, the suit’s legal underpinnings are far from certain. The suit in negligence sought to apply British tort law to an accident occurring on a Bangladeshi beach. Defendant Zodiac objected, “The claim seeks to extend the law of negligence beyond any recognized boundaries. It is the law of Bangladesh which applies to this case.”²⁶⁶

Professor Henning Jessen, of the World Maritime University, is sympathetic to the injured shipbreakers’ plight, but skeptical that a theory of transboundary, extra-contractual negligence can, or ought, be brought to bear:

It is hard to argue ... that there is any legal relationship between a former shipowner in one part of the world and the workers at a ship recycling yard in another part of the world. Anyone who takes a different legal view must take the trouble to explain why—potentially—thousands of unknown legal relationships exist between a (penultimate) shipowner and the workers at a foreign scrapyards—even though the shipowner has not sold the vessel to the relevant scrapyards ... [And w]hat about the passage of time? ... [W]hat if the vessel is not sold once but several times before it ends up at the scrapyards?²⁶⁷

In addition to these legal obstacles to assigning liability, there are practical concerns when using lawsuits such as Edris’ to enforce workers’ rights: third-party financial sponsorship and/or pro bono counsel is necessary to finance the litigation, and such actions are, by their nature, piecemeal and *ex post facto*. As one contemporary press account said of the prospect for future suits on the *Eurus London* model: “A claimant’s best hope might be for an early out-of-court settlement from an owner that is seeking to avoid

²⁶¹ Leigh Day director Martyn Day, quoted by Vidal, *supra* note 254. Edris’ theory of liability rested on the allegation of a legal duty of the former ship manager *not* to sell any vessels via any contractors or cash buyers to shipyards in Bangladesh (or Pakistan) since in doing so it would have known that the vessels would be dismantled in unsafe conditions and the higher price paid by the cash buyer was an indication that the vessel would ultimately be beached. Henning Jessen, *Safe and Environmentally Sound Ship Recycling—Is There a Case for Liability Claims?*, in *MARITIME LIABILITIES IN A GLOBAL AND REGIONAL CONTEXT* 89, 100 (Barış Soyer & Andrew Tettenborn, eds., 2019).

²⁶² Quoted by Vidal, *supra* note 254.

²⁶³ *Monitoring the Problem of Shipbreaking in Bangladesh*, NGO SHIPBREAKING PLATFORM ANN. REP. 10, 11 (2017). See also Adam Corbett, *NGO Shipbreaking Readies Personal Injury Cases Against Owners*, TRADEWINDS, June 12, 2018, <https://www.tradewindsnews.com/casualties/1509126/ngo-shipbreaking-readies-personal-injury-cases-against-owners>.

²⁶⁴ Corbett, *supra* note 263.

²⁶⁵ Gidman, et al., *supra* note 144.

²⁶⁶ Quoted by Vidal, *supra* note 254.

²⁶⁷ Jessen, *supra* note 261, at 100-01.

negative publicity from bringing a case to court in the UK.”²⁶⁸ And, indeed, so long as these cases are infrequent, the price of settling with the occasional Bangladeshi family is probably a bearable cost of doing business for a corporate shipowner.

On January 31, 2020, Leigh Day announced a second UK suit, brought on behalf of the widow and son of Md Khalil Mollah against Maran (UK) Ltd., a subsidiary of Greek shipowner Angelicoussis Shipping Group, and filed in the High Court of London.²⁶⁹ Mollah, 32, died on or around March 30, 2018, after falling from a height of eight stories, off the hulk of the former Maran vessel *Ekta*, where he worked as a fitter, on the beach in Chattogram.²⁷⁰ The new lawsuit asserts that Maran had a responsibility to take reasonable steps to ensure that its sale and disposal of the vessel would not endanger human health or the environment. Maran sold the vessel to cash buyer Wirana for \$16,243,106.80 in September 2017, at which time the scrap prices were \$255 per ton in China, compared with \$385 in India and \$405 in Bangladesh.²⁷¹ At or around the time of sale, the vessel’s name was changed from *Maran Centaurus* to *Ekta*, and she was reflagged from Greece to Palau.²⁷²

E. Corporate Responsibility: An Extralegal Solution?

For two decades, NGOs, including Greenpeace and the Shipbreaking Platform, have worked to raise public awareness of the environmental and human rights abuses in the South Asian shipbreaking industry.

There are signs that the pressure is starting to have a real effect on corporate decision-makers.²⁷³ Roger Strevens, a vice president with Norwegian shipowner Wallenius Wilhelmsen says shippers now frequently ask, “‘well, how do you deal with issues like vessel recycling.’ Because . . . even though they are not responsible for how we recycle our vessels from a legal perspective, if they are found to be using a carrier that disposes of vessels in a way which has a very negative environmental or social impact, they can

²⁶⁸ Corbett, *supra* note 263.

²⁶⁹ Press Release, Leigh Day, UK-Based Shipping Co. Facing Legal Claim Following Death Caused by Shipbreaking (Jan. 31, 2020), <https://www.leighday.co.uk/News/Press-releases-2020/January-2020/UK-based-shipping-company-facing-legal-claim-follo>.

²⁷⁰ *Id.*; John Vidal, “Mollah’s Life was Typical”: The Deadly Ship Graveyards of Bangladesh, *GUARDIAN*, Jan. 31, 2020, <https://www.theguardian.com/global-development/2020/jan/31/khalid-mollah-life-was-typical-the-deadly-ship-graveyards-of-bangladesh>. “The breaking of the tanker *Ekta* at Zuma Enterprise yard has been particularly hazardous: there, two fatalities have been recorded on two separate occasions. Fitter man Muhammad Khalil fell from great height while working on the *Ekta* on 31 March; and only three days ago, on 24 April, Shahidul Islam died when hit by a falling steel plate.” *Platform Publishes South Asia Quarterly Update #15*, NGO SHIPBREAKING PLATFORM (Apr. 27, 2018), <https://www.shipbreakingplatform.org/platform-publishes-south-asia-quarterly-update-15/>.

²⁷¹ Vidal, *supra* note 254; *Platform Publishes South Asia Quarterly Update #15*, *supra* note 270. The *Ekta*, “according to shipping databases, was sold to the breaker by the Swiss shipping company Navimar. Navimar bought the vessel that was operated by Maran Tankers . . . in September 2017, only a month before it was brought to the beach at Chittagong, so it’s clear that the Swiss company acted as a conduit to scrap the ship, making a purely financial transaction.” Gie Goris & Nicola Mulinaris, *Where Ships Go to Die*, *PUBLIC EYE* (Jan. 2019), available at <http://stories.publiceye.ch/ships/#the-hell-of-ship-graveyards-CY1ySCZpy2>.

²⁷² Goris & Mulinaris, *supra* note 271; *2017 Annual List of Ships Scrapped Worldwide* (spreadsheet), available at <https://www.shipbreakingplatform.org/wp-content/uploads/2018/08/2017-List-of-all-ships-dismantled-all-over-the-world.xlsx>.

²⁷³ See Alcaidea et al., *supra* note 27, at 270; Patrick M. Alderton & Merv Rowlinson, *The Economics of Shipping Freight Markets*, in *THE HANDBOOK OF MARITIME ECONOMICS AND BUSINESS*, *supra* note 40, at 181, 210-11. “[I]n today’s environmentally aware marine industry a critical news report or an unfavourable ‘tweet’ can undo years of good work in seconds.” John Chillingworth, *Don’t Let Poor Recycling Decisions Damage Your Reputation*, *LUCIONMARINE*, Aug. 13, 2018, <https://www.lucionmarine.com/blog/dont-let-poor-recycling-decisions-damage-your-corporate-brand-reputation> (citing and linking to Vidal, *supra* note 254).

end up being held accountable or responsible.”²⁷⁴ In combatting bad practices in shipbreaking, “[a]n alternative to the legal approach suggests the development of corporate decision-making on the basis of the market forces together with legal and ethical decision-making.”²⁷⁵

Norway’s Government Pension Fund Global (GPF) is the world’s largest sovereign wealth fund.²⁷⁶ In January, 2018, following advice from its internal Council on Ethics, the fund announced its divestment from four ocean carriers, including major player Evergreen, because the shipowners had scrapped their vessels under substandard conditions in Pakistan and Bangladesh.²⁷⁷ The fund said the use of third-party cash buyers was not considered a mitigating factor as to the shipowners’ culpability:

When a company sells a ship to a cash buyer, it is at the outset clear that the ship is being sold for the sole purpose of scrapping. Furthermore, both parties are aware that the price agreed depends largely on two factors: the volume of steel in the ship and the cost of dismantling it. The cheapest method of dismantling a ship is by beaching, which is why this process gives the seller the highest price for the vessel concerned.

The Council on Ethics presumes that companies that dispose of a ship for scrapping in this way are fully aware of what will happen to it next. It must also be considered as general knowledge in the shipping industry that environmental and working conditions associated with beaching are extremely poor. That a ship is nevertheless sent for scrapping at the Chittagong beach in Bangladesh is a consequence of an active choice on the part of the company that owned the vessel to maximise its profit. In the Council’s opinion, that company must shoulder an independent responsibility for doing so. There are better ways of dismantling ships that are readily available to the shipowner, but these are more expensive.

In the opinion of the Council on Ethics, therefore, there exists a tangible connection between the shipowner’s actions and the violation of ethical norms, which is of such a nature as to constitute a contribution to the latter under the GPF’s ethical guidelines.²⁷⁸

The Fund’s Council on Ethics has been keeping tabs on the shipbreaking industry and recently announced that assuring that companies it invests in practice responsible ship recycling will be a major focus for 2019.²⁷⁹ Private Norwegian pension fund KLP has followed GPF’s lead, adopting the GPF’s Council on Ethics recommendation, and divesting from shipping companies found to have knowingly scrapped vessels on Pakistani and Bangladeshi beaches, including the January 2019 addition of Nordic Tanker Lines to the original list of four.²⁸⁰ In September 2019, after a worker died in an explosion at Shree Ram breaking yard in Alang, KLP indicated concern over continued investment in blue-chip shipowner Maersk.²⁸¹ Maersk had scrapped four vessels with the yard, and promoted Shree Ram as an example of

²⁷⁴ Quoted by Simon West, *Shift to a Sustainable Future: No Escaping Ecological Juggernaut*, BREAKBULK MAG., Issue 1 (2020), at 33, 34.

²⁷⁵ Tsimplis, *supra* note 135, at 439 n. 181.

²⁷⁶ Niklas Krigslund, *Why the Norwegian Oil Fund Blacklisted Carriers for Beaching*, SHIPPINGWATCH, Jan. 17, 2018, <https://shippingwatch.com/carriers/article10210736.ece>.

²⁷⁷ *Id.* See also, *Observation & Exclusion of Companies*, NORGES BANK, <https://www.nbim.no/en/the-fund/responsible-investment/exclusion-of-companies/>, retrieved April 23, 2019.

²⁷⁸ Government Pension Fund Global Council on Ethics, *Recommendation to Exclude Evergreen Marine Corp (Taiwan) Ltd. from the Government Pension Fund Global* (GPF), June 29, 2017 (unofficial English translation), at 8.

²⁷⁹ Gwladys Fouche, *Norway Wealth Fund’s Watchdog Turns Spotlight on India Shipbreaking*, REUTERS, Mar. 11, 2019, <https://www.reuters.com/article/us-norway-swf-ethics/norway-wealth-funds-watchdog-turns-spotlight-on-india-shipbreaking-idUSKBNIQU124>.

²⁸⁰ KLP, *Decision to Exclude Nordic American Tankers Ltd.*, Jan. 2019; KLP, *Decision to Exclude Evergreen Marine Corporation Ltd., Korea Line Corporation, Precious Shipping PCL and Thoresen Thai Agencies PCL*, Jan. 2018.

²⁸¹ Niklas Krigslund & Mathias Blædel Lorenzen, *Investor Wants to Enter Talks with Maersk After Beaching Yard Death*, SHIPPINGWATCH, Sept. 13, 2019, <https://shippingwatch.com/secure/regulation/article11614792.ece>.

Indian progress towards responsible scrapping processes: “In this case, a serious accident occurred at a yard that’s viewed as one of India’s better yards. It’s worrying and something we would like to enter talks with Maersk about.”²⁸²

D. Michael Kaye, chief counsel of the American Archer Daniels Midland Company (ADM), told the assembled attorneys at a maritime law conference that, when his employer needed to decommission a vessel (an uncommon occurrence for the firm, which is primarily focused on food processing) he went to Maersk and outside counsel for advice.²⁸³ Outside counsel advised Kaye of the potential for reputational harm and spurred him to make further inquiries, after his Dubai scrapping broker initially told him there were ninety-odd yards available, mostly in South Asia. Kaye told his broker that ADM wanted a yard which could meet international hazardous waste transfer and shipbreaking convention standards and where ADM could be assured that no underage labor would be employed. These stipulations brought the number of available facilities down to four. Kaye said his concerns in this matter were not, *per se*, legal (the HKC, as discussed above, is not yet in force) but more business oriented, as to the reputational and sustainability interests of the corporation: “We don’t want to end up on the front page of the paper.”²⁸⁴

Similar motives are surely at play in the Ship Recycling Transparency Initiative (SRTI), a component of the Sustainable Shipping Initiative. The SRTI is a voluntary, membership-based information-sharing platform.²⁸⁵ Presumably, this model can benefit image-conscious shipowners who want to publicize their responsible ship recycling practices, and enable shippers and institutional investors to direct their business or investment towards socially responsible companies. (It may also have benefited the Norwegian economic and environmental crimes prosecutor Økokrim, who in January 2020 raided the offices of Teekay Shipping, in relation to that company’s demolition of the *Navion Britannia*, a transaction documented by the SRTI.)²⁸⁶

While some of these efforts are encouraging, voluntary corporate responsibility schemes will not solve the labor and environmental problems endemic to modern shipbreaking. In the global, transnational and highly competitive shipping industry, the efforts of a few marquee names, like Maersk or ADM, will have a limited impact on shipping lines competing to provide low-dollar freight rates: “Ships are moved from port to port, change their flags of registration and their names and can apparently be made to disappear from the face of the earth despite high-profile opposition and developed world government action to prevent disposal for beaching.”²⁸⁷ “[T]o the extent that social pressure by consumers is unlikely to play a role in rewarding the ethically behaving shipping company, simply because most other ships will belong to one-ship companies which will disappear with the ship, such an [extralegal, corporate social responsibility] approach is unlikely to succeed within the shipping sector.”²⁸⁸ Nikos Mikelis, non-executive director of cash buyer GMS and architect of the HKC, notes that the shipowners who have adopted “green recycling” programs or other corporate social responsibility principles are, largely, “either publicly listed . . . or companies whom, or whose clients, are directly exposed to the vagaries of public opinion.”²⁸⁹ Dr. Mikelis

²⁸² *Id.*, quoting KLP Head of Responsible Investments Jeanett Bergan. The ongoing Norwegian criminal investigation of Teekay Shipping’s Alang scrapping of the *Navion Britannia*, discussed briefly *supra*, is an example of how ship recycling transparency may backfire and expose a shipowner to criminal, as well as reputational, liability. See *Norwegian Authorities Investigate Teekay Subsidiary Over Shipbreaking*, *supra* note 251.

²⁸³ Panel Discussion, *From Blue to Brown Water: Maritime In-House Counsel Roundtable*, Am. Bar Ass’n Tort Trial & Ins. Practice Section Admiralty Disruption Conference (Mar. 23, 2019).

²⁸⁴ *Id.*

²⁸⁵ See Holmer & Draper, *supra* note 28; *Ship Recycling Transparency Initiative Launched*, MAR. EXECUTIVE, Dec. 10, 2018, <https://www.maritime-executive.com/article/ship-recycling-transparency-initiative-launched>; Andrew Stephens & Nicole Rencoret, *Creating a New Norm for Responsible Ship Recycling*, MAR. RISK INT’L, Feb. 11, 2019, <https://www.maritime-risk-intl.com/environment/creating-a-new-norm-for-responsible-ship-recycling-133624.htm>.

²⁸⁶ *Norwegian Authorities Investigate Teekay Subsidiary Over Shipbreaking*, *supra* note 251.

²⁸⁷ Cairns, *supra* note 26, at 177-78 (references omitted).

²⁸⁸ Tsimplis, *supra* note 135, at 439 n. 181.

²⁸⁹ MIKELIS, *supra* note 34, at 53.

attended a meeting designed to introduce the SRTI to industry stakeholders, and left “quite concerned that the SRTI was aiming to be (or was destined to become) an exclusive club of exclusive members.”²⁹⁰

Some twenty years ago, International Chamber of Shipping advisor Brian Parkinson suggested a voluntary self-regulation scheme, much like the SRTI, to journalist William Langewiesche.²⁹¹ He envisioned a regime “under which the industry would inspect and certify the yards at the Asian beaches and then factor in good behavior when choosing which ones to use.”²⁹² Langewiesche asked Parkinson, “what was to keep his scheme from becoming a two-tiered arrangement, whereby a few image-conscious companies would accept the expense of working with certified yards while all the other shipowners continued with business as usual, selling their vessels to the highest bidders. He said he worried about that too.”²⁹³

VI. CONCLUSIONS

While progress has undoubtedly been made in the twenty years since the South Asian shipbreaking yards became a site of international concern, the basic difficulties remain. Campaigners have tried, with some success, to use the Western beneficial ownership of scrapped merchant vessels as a lever to reform labor and environmental law in India, Pakistan, and Bangladesh.²⁹⁴ But it remains “difficult for a developing-world nation to increase significantly its [occupational, environmental, and health] standards for a particular, migrant-staffed industry, ship recycling, while the [...] profile for the rest of its society remains troubled.”²⁹⁵ The implementation of an EU financial instrument that would remove the financial incentive for beaching seems, at this writing, unlikely. As things stand, it seems the main practical effects of the European Regulation will be to: 1) shift scrapping tonnage to Turkey, and 2) encourage European shipowners to transfer ownership and/or reflag their vessels before the vessels reach the end of their operational life. As journalist William Langewiesche wrote twenty years ago, “the more likely effect of the reforms, as long as money can be made in Third World scrap, would simply be a new and less direct route to Asia: ships would pass through more hands, would maybe live longer plying faraway waters under new names and flags, and would still end up dying on some filthy beach.”²⁹⁶

With increased scrapping regulatory burdens, cash buyers may become even more important to the ship breaking process, assisting operational owners in selecting a compliant scrapping facility and/or assuming some of the operational owner’s liability for non-compliance.²⁹⁷ Should the Hong Kong

²⁹⁰ Quoted by *Ship Recycling Transparency Initiative Launched*, *supra* note 285. See also MIKELIS, *supra* note 34, at 48 (discussing possible development (and deleterious effect) of a three-tiered shipbreaking market of “(i) no standards; (ii) HKC; and (iii) ‘HKC Plus’”).

²⁹¹ LANGEWIESCHE, *supra* note 7, at 217-18.

²⁹² *Id.*

²⁹³ *Id.*

²⁹⁴ In the relatively early days of the anti-beaching campaign, journalist William Langewiesche asked Dutch Greenpeace operative Claire Tielens, “‘Why did you choose Alang? Why does it seem worse to you than the other industrial sites in India?’ She answered, ‘Because here there is a very direct link with Western companies.’ ‘But if it’s Western companies at Alang, versus Indian companies somewhere else, what difference does it make to the world’s environment?’ ‘Because those Western companies pretend to us here with glossy leaflets that they are so environmentally responsible. And it is a shame when they export their shit to the developing world.’” LANGEWIESCHE, *supra* note 7, at 218.

²⁹⁵ Rousmaniere & Raj, *supra* note 7, at 359. “For instance, the fragile workers’ compensation systems of developing countries cannot be expected to work well for shipbreaking workers and not for others.” *Id.*

²⁹⁶ *Id.* at 236.

²⁹⁷ “Under the Hong Kong Convention and the EU Regulation cash buyers will have the same responsibility for the ship as a shipowner, and on entry into force will therefore be subject to the same requirements and liabilities. The actual effect this will have remains to be seen, and it is probable that liabilities and responsibilities will be shared, *i.e.* the shipowner prepares the inventory for final survey whilst the cash buyer negotiates with a facility on the owner’s behalf and takes ownership at the point of delivery. There is a strong possibility that the cash buyer will be increasingly important as a facilitator as the industry moves towards compliance with the IMO Convention, matching vessels to

Convention come into force, at least one of the subcontinent's three shipbreaking nations will have strong incentives to remain non-signatory, as non-signatory breaking yards, working in concert with non-signatory open registries, will be at a significant competitive advantage in bidding for decommissioned vessels.²⁹⁸ (Present conditions suggest that Pakistan, whose breakers have been struggling in recent years and whose government has made no motions towards accession to the HKC, may fill this niche.)

These probable outcomes point to a missed opportunity for the developed world to contribute to the development of a more sustainable breaking industry on the Subcontinent. As described above, lax labor and environmental standards are not the only reasons that shipbreaking activity has become concentrated on the Subcontinent.²⁹⁹ The development of a safe and sustainable shipbreaking industry in India, Pakistan, and Bangladesh would be more economically efficient, on a global scale, than a wholesale shift of the industry to industrialized nations like Turkey and China (should China's yards reopen). Norway has funded an IMO project to improve conditions at Bangladeshi yards.³⁰⁰ The first phase of the project was inaugurated in 2015, with US \$1.5 million in funding, including some financial support from the Secretariat of the Basel, Rotterdam, and Stockholm Conventions (all dealing with transboundary wastes).³⁰¹ Phase I included environmental and economic studies of the industry, planning disposal streams for hazardous wastes, and consultation on strengthening and streamlining government regulators, provided in part by Turkish government officials. Phase I was completed in 2017, and a second phase launched at the end of 2018.³⁰² There has been criticism of this project, and what is really needed is upfront capital investments, to build medical response facilities, extend impermeable cutting surfaces further down the beach, and provide safer cutting equipment.³⁰³

yards and assisting shipowners in identifying suitable recycling facilities for their ships." INT'L CHAMBER OF SHIPPING, *supra* note 47, at 13.

²⁹⁸ If one of the four major shipbreaking countries (India, Bangladesh, Pakistan, and Turkey) is not party to the HKC as of entry into force, "their recycling yards at that time would be operating at a lower cost compared to compliant yards in Party countries, therefore being in a position to pay higher purchase prices." MIKELIS, *supra* note 34, at 56. That scenario will present major enforcement problems:

Whereas a ship will be able to demonstrate to PSC inspections throughout its operating life that it fulfills the requirements of the [HKC], it will still be possible for the shipowner to take advantage of any better prices that may be offered by non-Convention yards at the time the ship is sent for recycling, either by selling the ship on an as-is-where-is basis, or by re-registering the ship to a non-Party flag. The cost of changing flag for an average-sized ship is about US \$1 per [light displacement ton] LDT, which is quite insignificant if a non-Convention yard pays, say, US \$30 to US \$50 per LDT more than a Convention yard.

Id. at 56-57.

²⁹⁹ "Recycling vessels [in Europe] makes limited economic sense from this perspective, and is the modern-day equivalent of 'bringing steel to Sheffield.'" Yujuico, *supra* note 32, at 348.

³⁰⁰ See IMO, SAFE AND ENVIRONMENTALLY SOUND SHIP RECYCLING IN BANGLADESH—PHASE I, available at <http://www.imo.org/en/OurWork/Environment/MajorProjects/Pages/Ship-recycling.aspx>; *IMO and Bangladesh Review Shipbreaking Industry*, MAR. EXECUTIVE, Apr. 24, 2015, <https://www.maritime-executive.com/article/imo-and-bangladesh-review-shipbreaking-industry>. Nikos Mikelis credits the Norway-IMO project with helping Bangladesh move towards HKC ratification: "it is likely that Bangladesh will be the first of the two countries to ratify the Convention. This is because the country's administration is well aware of what is required to enable its industry to comply with the requirements of the Convention, thanks to a project funded by Norway and run by the IMO." Mikelis, *supra* note 132.

³⁰¹ IMO, *supra* note 300.

³⁰² Sefer A. Gunbeyaz, Rafet E. Kurt & Raphael Baumler, *A Study on Evaluating the Status of Current Occupational Training in the Ship Recycling Industry in Bangladesh*, 18 WORLD MAR. U.J. MAR. AFF. 41 (2019); *IMO Launches Phase II of Bangladesh Ship Recycling Program*, MAR. EXECUTIVE, Dec. 10, 2018, <https://www.maritime-executive.com/article/imo-launches-phase-ii-of-bangladesh-ship-recycling-program>. Reports on the outcomes of Phase I may be found at *Safe and Environmentally Sound Ship Recycling in Bangladesh – Phase I*, IMO, <http://www.imo.org/en/OurWork/Environment/MajorProjects/Pages/Ship-recycling.aspx>, retrieved Feb. 11, 2020.

³⁰³ An anonymous shipbreaking expert described the Norway-IMO project to social science researchers, "They have made two reports on the economics of ship recycling in Bangladesh and on the environmental impact of the industry, both reports are extremely poor, none of them look at the cost of death, or disease, or workers without

Meanwhile, the ships continue their inevitable tracks across all the world's oceans towards the beaches, in their hundreds, each year.

No sign of the *Rhongdhou* remains on the Chattogram beach; her steel now reinforces concrete construction of someone's home or place of work.

The *North Sea Producer* is entering her fourth year on that same beach, and cutting can finally recommence, now that the court has placed the government in charge of disposing of her radioactive carcass.

Reportedly, the *Harrier* remains intact, the floating dead, rusting as the Turkish government tries to recoup for the oil she allegedly spilled on her way to the knacker's yard.

And, on the other side of the world, a Brazilian aircraft carrier named *São Paulo* is on the auction block.³⁰⁴ The *São Paulo* once sailed under the French flag as the *Foch*. The *Foch* was sold to Brazil in 2000, shortly after her sister ship, the *Clemanceau*, went to the breakers in 1997 and ignited the modern anti-shipbreaking campaign. Now the *São Paulo* has reached the end of her useful life, and the government is accepting bids. The NGO Shipbreaking Platform and its Brazilian partner have written to the governments of Brazil and France (who retains a contractual interest in the disposition of the former *Foch*), urging them to keep the *São Paulo* from her sister's notoriety, and assure that the ship is decommissioned by a responsible breaker.³⁰⁵ Bids are currently being considered.

contracts, etcetera, etcetera. And the report on the environmental impacts just simply states that in times there needs to be an environmental impact and questions whether the pollution is actually coming from all the other industries which are around." Jasmien Claeys & Lieselot Bisschop, *Een Schip op het Strand is een Baken in Zee: Over de Criminogene Rol van Bedrijven en Overheden bij Shipbreaking [A Ship on the Beach is a Beacon in the Sea: About the Criminogenic Role of Companies and Governments in Shipbreaking]* 60 TIJDSCHRIFT VOOR CRIMINOLOGIE 1, 13 (2018).

³⁰⁴ Press Release, *Clemenceau's Sister Ship Heading For the Scrapyard*, NGO Shipbreaking Platform, Jan. 30, 2020, <https://www.shipbreakingplatform.org/sao-paulo-scrapping/>.

³⁰⁵ Letter from NGO Shipbreaking Platform and Associação Brasileira dos Expostos ao Amianto (ABREA) to Ministry of Defense, Brazil (Sept. 26, 2019), available at <http://ibasecretariat.org/letter-to-brazil-mod-re-disposal-aircraft-carrier-sao-paulo-sep-26-2019.pdf>; letter from ABREA to President Emmanuel Macron of France (Oct. 1, 2019), available at <http://ibasecretariat.org/letter-to-president-macron-re-auction-carrier-sao-paulo-oct-1-2019-fre.pdf>.