

# U.S. Shipbreaking Exports: Balancing Safe Disposal with Economic Realities

*Matt Cohen\**

INTRODUCTION .....	238
I. SHIPBREAKING: A MESSY BUSINESS .....	239
A. Chemicals Released in Shipbreaking .....	239
1. PCBs .....	240
2. Asbestos .....	240
3. TBTs .....	240
4. Bilge and Ballast Water .....	241
5. Paint .....	242
6. Oil .....	242
B. The Shipbreaking Process and Its Hazards .....	242
II: THE U.S. DILEMMA WITH SHIPBREAKING .....	244
A. Historical Background of U.S. Ship Scrapping Operations.....	245
III. LEGAL HURDLES FOR SHIP SCRAPPING U.S. SHIPS ABROAD.....	249
A. U.S. Domestic Law .....	249
1. TSCA .....	250
2. NEPA .....	250
3. RCRA .....	250
4. NMHA .....	251
B. International Obligations .....	251
1. Basel Convention .....	252
2. The Stockholm Convention .....	255
3. International Maritime Organization Guidelines .....	256
C. What are US obligations with respect to export of toxic chemicals? .....	257
IV. LEGAL CHALLENGES TO THE PILOT PROGRAM .....	260
A. The District Court Decision in BAN v. MARAD .....	260
B. Where does BAN v. MARAD leave us? .....	263
CONCLUSION: A BETTER WAY TO DO THINGS .....	266

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\* J.D., University of California, Davis, School of Law, 2005.

## INTRODUCTION

This past century has seen unprecedented growth in the area of international trade. Today, an estimated 88,000 ocean-going ships operate on the world's seas.<sup>1</sup> From 1994 to 2004, the total amount of vessels comprising the world fleet rose from 697.2 million deadweight tons (dwt) to 857.9 million dwt.<sup>2</sup> These ships facilitate the development of a significant portion of the world economy. Unfortunately, this growth creates new problems, namely, what to do with these ships once their useful life is over.

Under international agreement, ships must renew their seaworthiness certificate with their flag state every four years.<sup>3</sup> To be seaworthy, a ship must be fit for its intended use.<sup>4</sup> This means that a ship owner must provide a competent crew and furnish that crew with "tools reasonably fit for their intended use."<sup>5</sup> After twenty-five to thirty years of service, most ship owners find it difficult to get their ships to meet the safety requirements for these seaworthy certificates.<sup>6</sup> As a result, these ships are generally sold to international buyers for decommissioning and recycling, a practice referred to as "shipbreaking."<sup>7</sup>

This paper examines the law governing the scrapping of U.S. ships abroad.

<sup>1</sup> Paul J. Bailey, *Is there a Decent Way to Break up Ships?*, Int'l Labour Org. [ILO] Sectoral Activities Programme Discussion Paper 4 (2000), at <http://www.ilo.org/public/english/dialogue/sector/papers/shpbreak/> (last visited June 24, 2005).

<sup>2</sup> UK DEPARTMENT FOR TRANSPORT, MARITIME STATISTICS 2003, at 138-43, table 7.3 (2004), at [http://www.dft.gov.uk/stellent/groups/dft\\_transstats/documents/downloadable/dft\\_transstats\\_032464.pdf#search=Growth%20of%20principal%20merchant%20fleets%20at%20midyear%2019942003](http://www.dft.gov.uk/stellent/groups/dft_transstats/documents/downloadable/dft_transstats_032464.pdf#search=Growth%20of%20principal%20merchant%20fleets%20at%20midyear%2019942003) (last visited June 24, 2005) (excluding vessels of the US reserve fleet). Deadweight tons refers to the weight in metric tons of cargo, fuel, passengers, and crew aboard a ship when loaded to its maximum capacity. Pilotage Act, C.R.C. ch. 1268, § 2 (2004) (Can.).

<sup>3</sup> The seaworthy certificate includes: international tonnage certificate; international load line certificate; intact stability booklet; damage control booklets; minimum safe manning document; certificates for masters, officers or ratings; international oil pollution prevention certificate; oil record book; shipboard oil pollution emergency plan; garbage management plan; garbage record book; cargo securing manual; document of compliance and safety management certificate. See Int'l Mar. Org. [IMO], *Revised List of Certificates and Documents Required to be carried on Board Ships*, FAL/Circ.90-MEPC/Circ.368-MSC/Circ.946 at [http://www.imo.org/includes/blast\\_bindoc.asp?doc\\_id=1209&format=PDF](http://www.imo.org/includes/blast_bindoc.asp?doc_id=1209&format=PDF) (last visited June 24, 2005); see also INT'L FED'N FOR HUMAN RIGHTS, *Where do the "floating dustbins" end up? Labour Rights in Shipbreaking Yards in South Asia: The cases of Chittagong (Bangladesh) and Alang (India)*, 348(2) LA LETTRE 1, 7 (2002) [hereinafter FIDH], available at <http://www.fidh.org/asia/rapport/2002/bd1112a.pdf> (last visited June 24, 2005).

<sup>4</sup> 46 U.S.C.S. App. § 688 (2004); See also *Michalic v. Cleveland Tankers*, 364 US 325, 327 (1960) (establishing the duty to furnish a ship with tools fit for their intended use).

<sup>5</sup> *Michalic*, 364 U.S. at 327.

<sup>6</sup> FIDH, *supra* note 3, at 7.

<sup>7</sup> *Id.*; *Scrap prices to stay inflated says Gibsons*, LLOYD'S LIST, Jan. 16, 2004, at 4 [hereinafter LLOYD'S LIST].

Section I introduces the environmental problems associated with shipbreaking. Section II provides an overview of the present U.S. problems associated with shipbreaking and the domestic environmental problems that these ships pose. Section III looks at potential federal and international legal conflicts surrounding proposals to scrap U.S. ships abroad. Section IV discusses the present shipbreaking export program and the legal challenges facing that program. Finally, Section V examines ways in which the U.S. government can act to alleviate the domestic and foreign environmental hazards posed by old ships.

### I. SHIPBREAKING: A MESSY BUSINESS

On average, over 700 ships (fifteen to thirty million dwt) are recycled every year. More than ninety-five percent of the ship scrapping operations occur in China, India, Bangladesh, and Pakistan.<sup>8</sup> Factors favoring the growth of recycling operations in these countries include: availability of an inexpensive labor force, lax environmental standards, a domestic market for scrap steel, availability of cheap beaching operations, favorable climates, and geographical proximity to the eastbound trade routes.<sup>9</sup>

For these countries, shipbreaking is a big business. In 2003, China demolished 7.9 million dwt from January to August.<sup>10</sup> This represents an increase of 111 percent over the same period in 2002.<sup>11</sup> Unfortunately, while the development of these shipbreaking operations offers economic growth to these nations, it also brings grave environmental consequences.

#### A. Chemicals Released in Shipbreaking

Older ships such as those designated for scrapping are loaded with dangerous pollutants and hazardous wastes which, if not disposed of properly, pose serious health problems to living organisms. Ships arriving at these shipyards contain numerous hazardous materials including polychlorinated biphenyls (PCBs), asbestos, mercury, tributyl tin (TBT), cadmium, chromium-and-lead based paints, sodium chromate-treated mud ballasts, oils, and toxic bilge waters.<sup>12</sup> The release of these chemicals presents serious risks to the environment.

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<sup>8</sup> FIDH, *supra* note 3, at 7.

<sup>9</sup> *Id.* at 8.

<sup>10</sup> *China tops Alang as top ship breaker (China demolishes 7.9 million tones of old ships during Jan-Aug 2003 against Alang's 6.5 million tons)*, GLOBAL NEWS WIRE, Sept. 24, 2003 (on file with author).

<sup>11</sup> *Id.*

<sup>12</sup> BASEL ACTION NETWORK, *Needless Risk: the Bush administration's scheme to export toxic waste ships to Europe* 15-21 (Oct. 20, 2003) [hereinafter *Needless Risk*], at <http://www.ban.org/Library/Needless%20Risk%20Final.pdf> (last visited June 24, 2005).

### 1. PCBs

PCBs are man-made mixtures of up to 209 chemicals known as chlorinated hydrocarbons.<sup>13</sup> PCBs exist as either oily liquids or solids and are used on ships for a variety of purposes ranging from coolants and lubricants in electrical equipment to plasticizers in paints, plastics and rubber products.<sup>14</sup> Bioaccumulation of PCBs in the environment can lead to a number of human health risks ranging from skin conditions to cancer of the liver and biliary tract.<sup>15</sup>

### 2. Asbestos

Asbestos is a group of minerals that naturally occur as “long silky fibers.”<sup>16</sup> Asbestos was widely used in construction and industry because of its low conductivity rates, thermal insulation characteristics, resistance to abrasion and corrosion, and inflammability.<sup>17</sup> Ships constructed prior to 1980 are presumed to contain asbestos.<sup>18</sup> Asbestos was most often used on ships as a thermal insulator for pipes and bulkheads.<sup>19</sup> Exposure to asbestos fibers can result in asbestosis (scarring of the lungs leading to disability or death), and various types of cancer including mesothelioma, lung cancer, and various cancers of the stomach, colon, and rectum.<sup>20</sup> Although not banned by the federal government, many states treat asbestos as a hazardous waste and the federal government regulates its disposal and removal.<sup>21</sup>

### 3. TBTs

TBTs are a heavily toxic compound that act as a biocide to prevent the growth

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<sup>13</sup> AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, *ToxFAQs for Polychlorinated Biphenyls (PCBs)* (Feb. 2001) [hereinafter ATSDR], at <http://www.atsdr.cdc.gov/tfacts17.html> (last visited June 24, 2005).

<sup>14</sup> *Id.*; U.S. ENV'L. PROT. AGENCY, A GUIDE FOR SHIP SCRAPPERS, TIPS FOR REGULATORY COMPLIANCE, EPA 315-B-00-001, at 3-3 (Apr. 2000) [hereinafter EPA], available at <http://www.epa.gov/Compliance/resources/publications/civil/federal/shipscrapguide.pdf> (last visited June 24, 2004).

<sup>15</sup> ATSDR, *supra* note 13. Bioaccumulation is the process through which, over time, chemical concentrations in a biological organism increase to levels above ambient concentrations. Bioaccumulation occurs when chemicals are stored faster than they can be broken down or excreted by the organism. See Extension Toxicology Network, *Bioaccumulation*, at <http://extoxnet.orst.edu/tibs/bioaccum.htm> (last visited June 29, 2005), for further explanation of bioaccumulation.

<sup>16</sup> EPA, *supra* note 14, at 2-1.

<sup>17</sup> *Id.* at 2-3.

<sup>18</sup> *Id.* at 2-2.

<sup>19</sup> *Id.*

<sup>20</sup> *Id.* at 2-6.

<sup>21</sup> *Id.* at 2-24.

of algae and other marine organisms.<sup>22</sup> They are generally found in the anti-fouling paint covering the outside hulls of ships.<sup>23</sup> Contact of TBTs with the skin, lung, and eyes can lead to serious health conditions such as abdominal pain, vomiting, psycho-neurological disturbances, and partial paralysis.<sup>24</sup> Recognizing its dangerous effects on the environment, many countries throughout the world have banned the use of TBTs and other anti-fouling agents.<sup>25</sup> In addition, the International Maritime Organization (IMO) has agreed to mandatorily phase out and eventually prohibit the use of TBTs.<sup>26</sup>

#### 4. Bilge and Ballast Water

Bilge waters are present on a ship as a result of accumulation of rainwater or via leaks or spills.<sup>27</sup> Ballast waters are those waters pumped into a ship's holding tank to improve a ship's stability.<sup>28</sup> Bilge and ballast waters may contain a variety of toxic and hazardous chemicals including metals such as arsenic, copper, chromium, lead and mercury.<sup>29</sup> Additionally, they may contain toxic organics such as PCBs, oil and fuels, and exotic plants and animals, including microorganisms and pathogens.<sup>30</sup> Release of these waters into the marine environment can lead to a number of serious health consequences such as cancer, neurological disorders, and reproductive effects such as reduced birth weight and gestational age.<sup>31</sup>

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<sup>22</sup> John F. Sawyer, *Shipbreaking and North-South Debate: Economic Development or Environmental and Labor Catastrophe?*, 20 PENN ST. INT'L L. REV. 535, 540 (2002).

<sup>23</sup> *Id.*

<sup>24</sup> Stephen Karafiath, *A study into the toxic properties of marine paint and the effects of tributyl tin on marine organisms*, Toxic Materials Report 5 (2000), at <http://www.mbhs.edu/departments/magnet/coursesandlife/RandE/matsci/stephen.html> (last visited June 24, 2005).

<sup>25</sup> IMO, *Focus on IMO, Anti-fouling systems* 6 (2002), at [http://www.imo.org/includes/blast\\_bindoc.asp?doc\\_id=419&format=PDF](http://www.imo.org/includes/blast_bindoc.asp?doc_id=419&format=PDF) (last visited June 24, 2005).

<sup>26</sup> IMO, *Marine Environment Protection Committee – 41st session: 30 March - 3 April 1998*, at [http://www.imo.org/Newsroom/mainframe.asp?topic\\_id=109&doc\\_id=343](http://www.imo.org/Newsroom/mainframe.asp?topic_id=109&doc_id=343) (last visited June 24, 2005).

<sup>27</sup> EPA, *supra* note 14, at 4-1.

<sup>28</sup> *Id.*

<sup>29</sup> *Id.*

<sup>30</sup> *Id.* at 4-3.

<sup>31</sup> *Id.*; see also U.S. Env'l Prot. Agency, *Polychlorinated Biphenyls, Health Effects of PCBs* (2004), available at <http://www.epa.gov/opptintr/pcb/effects.html#Neuro> (last visited June 24, 2005).

## 5. Paint

Paints exist on both the interior and exterior of ships.<sup>32</sup> They often contain hazardous materials including PCBs, heavy metals, pesticides, and lead.<sup>33</sup> Metal based paints were often used to protect ship surfaces from corrosion due to prolonged exposure to the elements.<sup>34</sup> Paints containing pesticides were used on ship hulls to prevent the buildup of marine organisms.<sup>35</sup> Improper removal and disposal of these materials can lead to cancer or damage the central nervous system.<sup>36</sup>

## 6. Oil

Oil as defined by the Clean Water Act encompasses a wide variety of products including "petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes."<sup>37</sup> Oil is present on ships in a variety of locations including tanks as fuel, lubricating oil in storerooms, and as oil, fuel, or sludge in engine machinery or piping.<sup>38</sup> These wastes are often fire hazards.<sup>39</sup>

### *B. The Shipbreaking Process and Its Hazards*

Removal of these contaminants requires expensive, heavily regulated, and time consuming processes aimed at preventing worker exposure and minimizing risks to the environment. Unfortunately, many ship scrappers in developing nations do not follow these procedures.

The current process of shipbreaking in developing countries relies on cheap labor and low technology.<sup>40</sup> The majority of shipyards in India, Pakistan, and Bangladesh undergo extreme tidal changes during two days of the month. This enables the ship scrappers at these yards to operate without the use of dry docks.<sup>41</sup> The process of scrapping these ships at these yards is extremely harmful to the environment.

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<sup>32</sup> EPA, *supra* note 14, at 6-1.

<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> *Id.* at 6-2.

<sup>37</sup> Federal Water Pollution Control Act §311(a)(1), 33 U.S.C. §§ 1251-1387 (1972); 33 U.S.C. § 1320. Although there are many definitions of oil, the Clean Water Act definition is the one which federal agencies such as EPA use. As such, this definition is essential when discussing any projects involving federal regulation of oil. EPA, *supra* note 14, at 5-1.

<sup>38</sup> EPA, *supra* note 14, at 5-2.

<sup>39</sup> *Id.*

<sup>40</sup> Sawyer, *supra* note 22, at 545-46.

<sup>41</sup> *Id.*

First, ships are flooded up to deck level as they lie anchored offshore in order to clean out residual oil and gas. Next, the mixture of sea-water, hazardous materials, oil, and contaminants is pumped out of the ships into the inter-tidal zone. Finally, the ships are beached in a manner harmful to sea life and people in the vicinity: they are driven at full speed onto the beach. As the ships run up against the beach, the TBT and lead containing anti-fouling paint is rubbed off their hulls.<sup>42</sup>

Once the tide recedes, hoards of workers arrive with sledgehammers, gas torches, and their bare hands to break up the ships.<sup>43</sup> According to a Greenpeace study of various shipyards in Asia, the environmental contamination from these activities is severe.<sup>44</sup> The levels of TBTs found in the sediments at the Alang shipyard in India are 10 to 100 million times higher than internationally recognized limits.<sup>45</sup> Asbestos, insulation material, oily rags, and other discarded material lie in open dumps and are often used for fuel.<sup>46</sup> Dangerous contaminants pervade all aspects of the workers' environment, from their food supply to their homes. One study of soil contamination in the Alang shipyard discovered that five out of six soil samples taken from the workplace, living quarters and surrounding public areas tested positive for asbestos.<sup>47</sup>

In addition to the dangers associated with toxic chemicals, fires and explosions resulting from the contact of blowtorches with leftover gas fumes in ship tanks results in numerous deaths.<sup>48</sup> As of May 2003, the Alang shipyard experienced an average death toll of two people per month.<sup>49</sup> Improper safety precautions, inadequate supply of safety equipment, and poor training led to an increased likelihood of accidents for workers in these shipyards.<sup>50</sup> Workers have fallen from ships, been crushed by falling steel beams, and received

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<sup>42</sup> *Id.* at 549-50.

<sup>43</sup> Judit Kanthak & Nityanand Jayaraman, *Ships for Scrap III, Steel and Toxic Wastes for Asia: Findings of a Greenpeace study on Workplace and Environmental Contamination in Alang-Sosiya Shipbreaking Yards Gujarat, India*, GREENPEACE REPORT 15 (2001), at <http://www.ban.org/Library/ALANG%202000%20final.pdf> (last visited June 24, 2005); see Jonathan Wills, *A Survey of Offshore Oilfield Drilling Wastes and Disposal Techniques to Reduce the Ecological Impact of Sea Dumping*, Muddied Waters (May 25, 2000), at <http://www.offshore-environment.com/ospar.html> (last visited June 24, 2005), for a discussion of the international limits on toxic substances adopted by the European Union during the convention for the Protection of the Marine Environment of the North-East Atlantic, Sept. 1992. The E.U. limits entered into force in March of 1998. *Id.*

<sup>44</sup> Kanthak & Jayaraman, *supra* note 43.

<sup>45</sup> *Id.*

<sup>46</sup> *Id.* at 13.

<sup>47</sup> *Id.* at 14.

<sup>48</sup> FIDH, *supra* note 3, at 8.

<sup>49</sup> *Six killed in Alang explosion*, THE ECONOMIC TIMES OF INDIA, May 21, 2003 [hereinafter ECONOMIC TIMES] (on file with author).

<sup>50</sup> *Id.*

electric shocks.<sup>51</sup>

Despite the fact that these shipbreaking operations pose grave danger to workers and their environment, countries such as China, India, and Bangladesh continue to be the primary destination for most old ships.<sup>52</sup> In the U.S., ship owners faced with the need to dispose of their ships in a profitable manner consider ship exports a viable option. The U.S. government, which owns a significant proportion of U.S. flagged ships, has been no exception.

## II: THE U.S. DILEMMA WITH SHIPBREAKING

U.S. flagged ships comprise an insignificant proportion of the total sea traffic.<sup>53</sup> As of 2003, there were 418 U.S. flagged ships weighing over 1,000 gross tons.<sup>54</sup> U.S. companies own an additional 670 ships but operate them under foreign registries.<sup>55</sup> Of the 418 U.S. flagged ships, the government owns and operates 179 ships.<sup>56</sup> A benefit of having a U.S. flagged ship is that they have the exclusive rights to carry interstate cargo and military cargo overseas.<sup>57</sup>

The main reason for the small number of U.S. flagged ships is the U.S. government's stringent environmental and safety requirements. Ships registered under the U.S. flag incur substantially larger costs than ships registered with other countries.<sup>58</sup> U.S. flagged vessels must employ an American crew, often pay higher taxes and fees than other nations, and must follow U.S. regulations rather than the International Code of Regulations.<sup>59</sup> The U.S. regulations require

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<sup>51</sup> FIDH, *supra* note 3, at 8; *see also Sea Giant demolition stirs up a storm: Pollution row flares as world's second-biggest ship is beached at Pakistan's shipbreaking centre of Gaddani*, LLOYD'S LIST, Oct. 15, 2003, at 4 (describing the primitive working conditions of a Pakistani ship breaking yard; "[T]hey look like survivors from the darkest days of the industrial revolution").

<sup>52</sup> FIDH, *supra* note 3, at 7.

<sup>53</sup> Baily, *supra* note 1.

<sup>54</sup> U.S. MARITIME ADMIN., *U.S. Flag Merchant Fleet, Calendar Years 2003 through 1946* (2004), at [http://www.marad.dot.gov/MARAD\\_statistics/US-FLAG-HISTORY.pdf](http://www.marad.dot.gov/MARAD_statistics/US-FLAG-HISTORY.pdf) (last visited June 24, 2005); Cent. Intel. Agency, *The World Fact Book: United States* (2005) [hereinafter CIA], at <http://www.cia.gov/cia/publications/factbook/geos/us.html#Trans> (last visited June 24, 2005). Gross tonnage is the measurement used as a basis for manning regulations, safety rules and registration fees. "Gross tonnage is a function of the moulded volume of all enclosed spaces of the ship." IMO, *International Convention on Tonnage Measurement of Ships, 1969* (entered into force July 18, 1982), at [http://www.imo.org/Conventions/contents.asp?doc\\_id=685&topic\\_id=259#2](http://www.imo.org/Conventions/contents.asp?doc_id=685&topic_id=259#2) (last visited June 24, 2005).

<sup>55</sup> CIA, *supra* note 54.

<sup>56</sup> U.S. MARITIME ADMIN., *supra* note 54.

<sup>57</sup> Cargo Preference Act of 1954, Pub. L. No. 83-664; Jones Act of 1920, 46 U.S.C.S. App. § 688 (2004).

<sup>58</sup> *See* APL LTD., *Trade Topics: a Ship's Flag* (2004), at <http://www.apl.com/boomerangbox/d15.htm> (last visited June 24, 2005).

<sup>59</sup> *See generally* 46 CFR §§ 1.01-5 to 1.03-50 (2004).

rigid training for crews, impose stringent licensing requirements for ship documents, and contain rigorous safety and communication equipment requirements.<sup>60</sup> Due to these restrictions, most ships subject to U.S. environmental laws are those owned and operated by the U.S. government. As the majority ship owner, the U.S. government bears the responsibility for developing viable ship disposal policies.<sup>61</sup>

#### *A. Historical Background of U.S. Ship Scrapping Operations*

Prior to the 1980's, most U.S. ships were disposed domestically.<sup>62</sup> During the Reagan era, a massive build up of military forces led to sharp declines in the number of federal ships scrapped.<sup>63</sup> This downturn in supply, coupled with new, more stringent environmental and safety regulations, led to the disintegration of the domestic shipbreaking industry.<sup>64</sup> By the end of the cold war, when the government desired to downsize its fleet through decommissioning and disposal, the few remaining U.S. based ship scrapping operations were ill equipped to meet the new environmental requirements.<sup>65</sup>

At the same time that domestic ship scrapping operations diminished, the Clinton administration placed a moratorium on the export of federally owned ships.<sup>66</sup> This moratorium was largely in response to environmental and humanitarian concerns associated with shipbreaking.<sup>67</sup> As a result of the moratorium, the U.S. has not sold a vessel for scrapping overseas since 1994.<sup>68</sup>

Unfortunately, the moratorium had some negative consequences. The inability to scrap ships abroad coupled with the lack of adequate funding for expensive domestic scrapping programs led to an increase in the number of ships placed in storage.<sup>69</sup> Today, approximately 250 federally owned ships await disposal.<sup>70</sup> The majority of these ships, some 180, have been placed into the National Defense Reserve Fleet (NDRF) under the authority of the

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<sup>60</sup> *Id.*

<sup>61</sup> See Bailey, *supra* note 1.

<sup>62</sup> Jeffrey Luster, *The Domestic and International Legal Implications of Exporting Hazardous Waste: Exporting Naval Vessels for Scrapping*, 7 ENVTL. LAW 75, 83 (2001).

<sup>63</sup> *Id.*

<sup>64</sup> *Id.*

<sup>65</sup> *Id.* at 84.

<sup>66</sup> Gary Cohn, *U.S. Halts Scrapping of Ships Overseas*, BALT. SUN, Sept. 24, 1998, available at [http://www.ban.org/ban\\_news/usships.html](http://www.ban.org/ban_news/usships.html) (last visited June 24, 2005).

<sup>67</sup> See GREENPEACE, *U.S. Plans to Dump Toxic Navy Ships on Poor Countries* (Dec. 11, 2002), at [http://www.greenpeace.org/news/details?item\\_id=88579&campaign\\_id=](http://www.greenpeace.org/news/details?item_id=88579&campaign_id=) (last visited June 24, 2005).

<sup>68</sup> *Id.*

<sup>69</sup> Luster, *supra* note 62, at 85.

<sup>70</sup> EPA, *supra* note 14, at A-5.

Department of Transportation's Maritime Administration (MARAD).<sup>71</sup> The NDRF was established under Section 11 of the Merchant Ship Sales Act of 1946.<sup>72</sup> Its purpose was to provide a reserve of ships to meet shipping requirements in times of national emergencies.<sup>73</sup> Ships within the NDRF that cannot meet the Ready Reserve Fleet requirements are designated for disposal and placed in a non-retention fleet.<sup>74</sup> Presently, non-retention fleets are situated in three locations: the James River near Fort Eustis, VA; Beaumont, TX; and Suisun Bay near Benicia, CA.<sup>75</sup>

Aside from the foreign environmental and human rights concerns associated with their exportation, non-retention ships pose serious environmental hazards to the areas where they are docked. According to the Department of Transportation Office of the Inspector General:

Environmental dangers associated with MARAD's old, deteriorating ships are very real and increasing daily. These vessels are literally rotting and disintegrating as they await disposal. Some vessels have deteriorated to a point where a hammer can penetrate their hulls . . . .<sup>76</sup>

The maintenance, storage, and security costs associated with these old ships are high. Between 1998 and 2003, the Environmental Protection Agency (EPA) estimated the total maintenance costs to be around \$58 million.<sup>77</sup> For older ships requiring repairs to stay afloat, annual dry-docking and repair costs could exceed \$800,000 per ship.<sup>78</sup> The fiercest debate surrounding the fate of these non-retention ships focuses on a number of ships in the James River Reserve Fleet (JRRF).

The JRRF represents the largest grouping of non-retention ships in the NDRF.<sup>79</sup> The JRRF includes sixty-two ships in varying condition.<sup>80</sup> A recent hazardous material inventory of thirteen ships in the JRRF indicated an average of fifty-four tons of non-liquid PCB's and 135 tons of asbestos contaminated material per ship.<sup>81</sup> As well as PCBs and other toxic chemicals, each ship

<sup>71</sup> *Id.*; *Needless Risk*, *supra* note 12, at 2.

<sup>72</sup> 50 U.S.C.S. app. § 1744 (2005).

<sup>73</sup> U.S. DEP'T OF TRANSP. MARITIME ADMIN., *National Defense Reserve Fleet*, at <http://marad.dot.gov/Programs/NDRF.html> (last visited June 24, 2005).

<sup>74</sup> *Needless Risk*, *supra* note 12, at 3.

<sup>75</sup> *Id.*

<sup>76</sup> MARITIME ADMIN., U.S. DEP'T OF TRANSP. OFFICE OF INSPECTOR GEN., *Report on the Program for Scrapping Obsolete Vessels*, MA-2000-067, at 12 (Mar. 10, 2000), available at [http://www.oig.dot.gov:8080/show\\_pdf.php?id=203](http://www.oig.dot.gov:8080/show_pdf.php?id=203) (last visited June 24, 2005).

<sup>77</sup> EPA, *supra* note 14, at A-6.

<sup>78</sup> *Id.*

<sup>79</sup> *Needless Risk*, *supra* note 12, at 3.

<sup>80</sup> *Id.*

<sup>81</sup> ABLEUK, *The MARAD Fleet Waste Survey* (2004), at

contains an average of 176 tons of heavy fuel, 140 tons of oily water, and 120 tons of other oils such as residue, diesel fuel, and lube oil.<sup>82</sup> In recent years, hull failures of four ships in the JRRF have caused more than \$6.2 million in response and clean-up costs.<sup>83</sup> A risk assessment study performed by MARAD determined that an oil spill in the James River could cost upwards of \$123 million to clean up.<sup>84</sup> In addition to these high costs, environmentalists and government agencies are concerned that further leaks could lead to irreparable harm to the river estuary.<sup>85</sup>

As a solution to this problem, Congress ordered MARAD to dispose of all its non-retention ships by September 30, 2006.<sup>86</sup> Concurrent with this mandate, President Bush reversed the export moratorium.<sup>87</sup> In order to facilitate ship disposal, Congress authorized an export pilot program in the 2003 defense appropriations bill.<sup>88</sup> The act provided twenty million dollars for the disposal of four NDRF ships.<sup>89</sup> Pending success, the pilot program could be expanded to export up to 400 ships within the next few years.<sup>90</sup>

The language of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 calls on the Department of Transportation, the Secretary of State, and EPA to jointly undertake one or more pilot programs to initiate ship disposal for "not more than four vessels."<sup>91</sup> Each pilot program must include activities which "appropriately address[] concerns regarding worker health and safety and the environment."<sup>92</sup> Additionally, they must seek to improve international ship scrapping practices through information transfer and

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<http://www.ableuk.com/ableshipprecycling/pdfs/waste.pdf> (last visited June 24, 2005).

<sup>82</sup> *Id.*

<sup>83</sup> *Id.* at 4.

<sup>84</sup> *Needless Risk*, *supra* note 12, at 2.

<sup>85</sup> *Id.*

<sup>86</sup> Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, Pub. L. No. 106-398, § 3502(a)(1)(A); Michael Burnham, *Toxics: EPA maintains polluted ships are seaworthy*, GREENWIRE, Sept. 9, 2003, at 9 [hereinafter Spence], at [http://www.eenews.net/Greenwire/searcharchive/test\\_search-display.cgi?q=polluted+ships+are+seaworthy&file=%2FGreenwire%2Fsearcharchive%2FNewsline%2F2003%2FSept9%2F09090319.htm](http://www.eenews.net/Greenwire/searcharchive/test_search-display.cgi?q=polluted+ships+are+seaworthy&file=%2FGreenwire%2Fsearcharchive%2FNewsline%2F2003%2FSept9%2F09090319.htm) (last visited June 24, 2005); Bruce Geiselman, *Floating fleet feeds fear; Excessive costs cause delays in old ship disposal*, WASTE NEWS, Dec. 9, 2002, at 16.

<sup>87</sup> THE ROYAL INST. OF NAVAL ARCHITECTS, *US to renege on ship-breaking agreement?*, WARSHIP TECHNOLOGY, Mar. 2003, at 1, available at [http://www.rina.org.uk/rfiles/warship/contents\\_march03.pdf](http://www.rina.org.uk/rfiles/warship/contents_march03.pdf) (last visited June 24, 2005).

<sup>88</sup> Bob Stump National Defense Authorization Act for Fiscal Year 2003, Pub. L. No. 107-314, § 3504.

<sup>89</sup> INDIANA UNIVERSITY OF PENNSYLVANIA, *U.S. Congress approves \$20 million for recycling some JRRF ships*, National Education and Training Center Recycling News, Nov. 1, 2002 (on file at the Indiana University of Pennsylvania Library).

<sup>90</sup> THE ROYAL INST. OF NAVAL ARCHITECTS, *supra* note 87.

<sup>91</sup> Floyd D. Spence National Defense Authorization Act § 3502(a)(1)(A).

<sup>92</sup> Bob Stump National Defense Authorization Act § 3504.

cooperative efforts with foreign governments.<sup>93</sup>

After an initial bidding process in which MARAD accepted bids from domestic and foreign contractors, MARAD awarded the British shipbreaker, Able UK, a \$17.3 million contract to dismantle thirteen ships.<sup>94</sup> Defending its decision to award a contract to a foreign entity, MARAD asserted that facilities within the U.S. are inadequate for processing ships in a safe and cost effective manner.<sup>95</sup> In an effort to allay concerns by environmentalists, MARAD required all bidders "to comply with contractual requirements including those based on U.S. laws and regulations, safety and health standards, and environmental requirements."<sup>96</sup> In addition, MARAD will provide an estimated amount of the quantity of hazardous materials on each vessel prior to export.<sup>97</sup> As a final environmental safeguard, MARAD and EPA stated that they would:

[J]ointly evaluate the Able UK shipyard during or after the four ships of the initial pilot program are disposed of, to ensure that adequate environmental and safety standards have been implemented and are being adhered to.<sup>98</sup>

Such an evaluation includes site visits by EPA for oversight purposes.<sup>99</sup>

Despite these conditions, MARAD asserts that its responsibility has clear limits. First, MARAD does not provide insurance for transport, leaving bidders

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<sup>93</sup> *Id.*

<sup>94</sup> Chris Tighe, *Residents in court over 'ghost ships'*, FINANCIAL TIMES, Dec. 15, 2003, at 9; *Court tells Able: Keep hands off 'ghost ships' until hearing*, *Scrap, Able UK Ltd.*, AMERICAN METAL MARKET, Nov. 7, 2003, at 10.

<sup>95</sup> MARAD and the U.S. EPA evaluated the Able UK facility by reviewing documentation and an on-site visit conducted between February 23-26, 2003. Through this visit "MARAD and the U.S. EPA concluded that the facility met or exceeded appropriate standards for facility capacity and capabilities, worker safety, environmental protection, and hazardous materials management." MARITIME ADMIN., U.S. DEP'T OF TRANS., TRANSFER OF NATIONAL DEFENSE RESERVE FLEET VESSELS FROM THE JAMES RIVER RESERVE FLEET FOR DISPOSAL AT ABLE UK FACILITIES, TEESIDE, UK, FINAL 57-58 (2004) [hereinafter EA REPORT], available at [http://dmses.dot.gov/docimages/pdf89/288120\\_web.pdf](http://dmses.dot.gov/docimages/pdf89/288120_web.pdf) (last visited June 24, 2005); see also Luster, *supra* note 62, at 79; see also *Basel Action Network v. Maritime Admin.*, 285 F. Supp. 2d 58, 68 (D.D.C. 2003) (explaining that exportation provides the best value over local scrapping); see also *N.R. Acquisition Corp. v. United States*, 52 Fed. Cl. 490 (2002); see also *USS Cabot/Dedalo Museum Found. v. United States Customs Serv.*, 41 ERC (BNA) 1020 (S.D. La. 1995) (discussing the difficulties encountered with economically feasible national shipbreaking industries).

<sup>96</sup> According to MARAD, "U.S. standards provide a benchmark against which all can be measured equally." MARITIME ADMIN., U.S. DEP'T OF TRANS., *Ship Scrapping Industry Meeting Information* (Apr. 6, 2001) [hereinafter Q&A], available at <http://www.marad.dot.gov/Headlines/PDF/IndMtgqA.pdf> (last visited June 24, 2005). In the case of the present pilot program, U.K., rather than U.S., environmental and safety regulations govern the disposal process. EA REPORT, *supra* note 95, at 55.

<sup>97</sup> EA REPORT, *supra* note 95, at 55-56.

<sup>98</sup> *Id.* at 58.

<sup>99</sup> *Id.*

to determine and obtain appropriate insurance protection.<sup>100</sup> Second, MARAD will not offer any preferences for domestic over foreign scrappers.<sup>101</sup> Third, MARAD will not provide any assurances regarding the type, quantity, or location of hazardous materials aboard a vessel.<sup>102</sup>

According to environmentalists, these export programs pose far greater environmental danger than domestic scrapping programs. They argue that MARAD's scrapping procedures for foreign scrap yards will not ensure adequate protection for the environment or human rights.<sup>103</sup> One common claim is that since bidders must obtain their own insurance, they will insure for the least amount possible.<sup>104</sup> For example, in the current export pilot program, successful bidders have insured the ships at only five million dollars per ship.<sup>105</sup> In the case of a major oil spill requiring multi-million dollar clean-up costs, the international community or national governments would be left to pick up the tab.<sup>106</sup> Furthermore, without intensive MARAD and EPA monitoring of the working conditions in foreign scrap yards, it would be difficult to ensure substantial compliance with U.S. worker safety and environmental regulations.<sup>107</sup>

### III. LEGAL HURDLES FOR SHIP SCRAPPING U.S. SHIPS ABROAD

#### A. U.S. Domestic Law

Over the past few decades, Congress greatly expanded federal regulation of the environment. Today, the principal environmental laws that agencies such as MARAD must comply with include: the Toxic Substances Control Act (TSCA), the National Environmental Policy Act (NEPA), the Resource Conservation and Recovery Act (RCRA), and the National Maritime Heritage Act (NMHA). Opponents of the current ship disposal plan claim that the exportation process violates these laws.

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<sup>100</sup> Q&A, *supra* note 96, at 3.

<sup>101</sup> MARAD asserts that, for the purposes of the export pilot program, all ship scrapping operations are responsible for complying with all U.S. laws, regulations, and requirements before disposing of a vessel. *Id.* at 2.

<sup>102</sup> *Id.* at 7.

<sup>103</sup> See generally *Needless Risk*, *supra* note 12.

<sup>104</sup> James Brewer, *Shipbreaking: US 'mothball fleet' is substantially under-insured claims green group*, LLOYD'S LIST, Oct. 23, 2003, at 3.

<sup>105</sup> *Id.*

<sup>106</sup> *Id.*

<sup>107</sup> See *Shipbreakers, revisited*, BALT. SUN, Apr. 13, 2003, at 4C (citing the USS Bennington sale in 1996 to a foreign Indian yard). MARAD asserts that for the present project, a combination of government and contractor personnel for oversight operations. See Q&A, *supra* note 96, at 2.

### 1. TSCA

One of the principal legal arguments against the ship export program is TSCA's ban of PCBs. Congress enacted TSCA in 1976 with the goal of establishing restrictions on potentially hazardous chemicals.<sup>108</sup> Under Section 6(e) of TSCA, EPA must regulate the manufacture, processing, distribution in commerce, use and disposal of PCBs.<sup>109</sup> Section 761 of TSCA limits the ability of ships to be exported from the U.S. with PCB levels higher than fifty parts per million (ppm) without obtaining a prior EPA rulemaking exemption.<sup>110</sup> Under a pre-moratorium agreement between EPA and MARAD, EPA would permit exports for ship scrapping on the condition that, prior to export, all liquid PCBs were removed, all readily removable solid PCBs were extracted, and notice of a pending sale was sent to the country of import.<sup>111</sup> The present program substantially relied upon this agreement.<sup>112</sup>

### 2. NEPA

NEPA requires all federal agencies to consider the environmental effects of any major federal action significantly affecting the environment.<sup>113</sup> Major federal actions encompass any act where the potential for federal control is great. Before undertaking such an action, federal agencies must prepare an Environmental Assessment (EA) and, if there are determined to be significant impacts, an Environmental Impact Statement (EIS). Federal agencies have substantial discretionary authority to rely on their findings of no significant impacts (FONSIs) and decline to perform a more extensive EIS.<sup>114</sup> A court may overturn an agency determination only if the agency decision is found to be an arbitrary or capricious abuse of power.<sup>115</sup>

### 3. RCRA

Hazardous waste export is also regulated by RCRA. Congress developed RCRA in 1976 as a "cradle to grave" system of management for solid and

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<sup>108</sup> EPA, *supra* note 14, at 3-4.

<sup>109</sup> 15 U.S.C. § 2605(e) (2005); 40 C.F.R. § 761.1 (2005).

<sup>110</sup> 40 C.F.R. §§ 761.20, 761.97; *see also* 15 U.S.C. §2605(e)(3) (explaining the exemption process).

<sup>111</sup> EPA, *supra* note 14, at A-7.

<sup>112</sup> *Basel Action Network v. Maritime Administration*, 285 F. Supp. 2d 58, 63 (D.D.C. 2003).

<sup>113</sup> WILLIAM H. RODGERS, JR., *ENVIRONMENTAL LAW* 803 (2d ed. 1994); *see also* *Calvert Cliffs Coord. Comm. v. U.S. Atomic Energy Comm.*, 449 F.2d 1109, 1112 (D.C. Cir. 1971) (requiring federal agencies to protect the environment to the "fullest extent possible").

<sup>114</sup> *See* *South Carolina ex rel. Campbell v. O'Leary*, 64 F.3d 892, 896 (4th Cir. 1995).

<sup>115</sup> *See* *Chevron U.S.A. v. Natural Res. Def. Council*, 467 U.S. 837, 844 (1984).

hazardous wastes.<sup>116</sup> While RCRA is principally concerned with domestic production, use, and disposal, it also imposes some export restrictions with respect to Organization for Economic Cooperation and Development (OECD) countries.<sup>117</sup> Under RCRA, wastes designated for recovery operations in these countries must comply with notification and consent procedures prior to export.<sup>118</sup> The importing country must consent to these imports and recovery facilities in these countries must be approved by EPA.<sup>119</sup>

#### 4. NMHA

Specific restrictions regarding the sale of NDRF ships for disposal are set out in the NMHA.<sup>120</sup> NMHA requires the Secretary of Transportation to dispose of all vessels “in the manner which provides the best value to the Government.”<sup>121</sup> While cost is the primary consideration used in selecting a disposal option, costs analysis are relegated with less importance where towing a vessel would pose “a serious threat to the environment.”<sup>122</sup>

Meeting the requirements of each of these federal laws is just the first step towards creating a viable export program. In addition, the U.S. government must respect both international agreements and the environmental laws of importing countries. These agreements and laws can greatly complicate anticipated transfers.

#### *B. International Obligations*

In the past few years, the problems associated with the transboundary movement of hazardous wastes have begun to receive worldwide attention. As a result, a number of agreements have been created to limit the movement and dumping of dangerous wastes. The Basel Convention, Stockholm Convention, and International Maritime Organization (IMO) guidelines represent the most influential multi-lateral agreements.

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<sup>116</sup> RODGERS, *supra* note 113.

<sup>117</sup> The OECD represents a group of 30 countries with commitments to democratic government and free market economy systems. The OECD members are generally wealthy countries that work together to “discuss, develop, and refine economic and social policies.” See OECD, *Overview of the OECD: What is it? History? Who does what? Structure of the organisation?*, at [http://www.oecd.org/document/18/0,2340,en\\_2649\\_201185\\_2068050\\_1\\_1\\_1\\_1,00.html#The\\_OECD\\_what\\_is\\_it](http://www.oecd.org/document/18/0,2340,en_2649_201185_2068050_1_1_1_1,00.html#The_OECD_what_is_it) (last visited June 24, 2005), for more information regarding the OECD. See 40 C.F.R. § 262.83 (2005).

<sup>118</sup> 40 C.F.R. § 262.83.

<sup>119</sup> *Id.*

<sup>120</sup> 16 U.S.C. § 5405(c) (2005).

<sup>121</sup> *Id.*

<sup>122</sup> *Id.*

### 1. Basel Convention

One of the most groundbreaking international environmental treaties is the Basel Convention. The Basel Convention was adopted in 1992 with the express goal of controlling the transboundary movement of hazardous wastes.<sup>123</sup> The Basel Convention arose because of a dramatic increase in the worldwide production of hazardous waste.<sup>124</sup> In 1947, the world produced just five million metric tons of hazardous waste.<sup>125</sup> By 1990, that number had risen to 300 million metric tons, and by 1997 to over 400 million metric tons.<sup>126</sup>

The dangers associated with waste exportation from the U.S. and other developed nations were the primary inspiration for the Basel Convention.<sup>127</sup> As a result of the stringent environmental regulations in these developed nations, hazardous waste generators found it cheaper to export their wastes to countries with less stringent standards.<sup>128</sup> Rather than incinerating wastes in developed countries like the U.S., where costs can exceed \$2,000 per ton, many generators instead chose to dump their waste in developing countries, where costs were a mere forty dollars per ton.<sup>129</sup>

The Basel Convention has three objectives: to minimize the amount and hazard level of generated wastes, to promote the disposal of wastes as close as possible to the source of generation, and to encourage “environmentally sound management” and disposal of hazardous waste.<sup>130</sup> Articles 1 and 2, along with Annexes I and II, set forth a broad definition of hazardous wastes and management of that waste.<sup>131</sup> Article 4 establishes a responsibility on the part of a party to properly minimize the production and manage the movement of hazardous wastes.<sup>132</sup> Article 6 institutes a series of notice and consent procedures with respect to the transboundary movement of hazardous wastes.<sup>133</sup> Under the Basel Convention, a party may not export waste without obtaining

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<sup>123</sup> Sejal Choksi, *Annual Review of Environmental And Natural Resources Law: International Law, The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, 28 *ECOLOGY L.Q.* 509 (2001).

<sup>124</sup> *Id.* at 512.

<sup>125</sup> *Id.*

<sup>126</sup> *Id.*

<sup>127</sup> *Id.* at 516.

<sup>128</sup> Choksi, *supra* note 123, at 514.

<sup>129</sup> *Id.* at 513-14.

<sup>130</sup> *Id.* at 517.

<sup>131</sup> Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Mar. 22, 1989, art. 1, 2, ann. I, II, 28 I.L.M. 657, 1673 U.N.T.S. 57 [hereinafter *Basel*], at <http://www.basel.int/text/con-e.htm> (last visited June 24, 2005).

<sup>132</sup> *Id.* at art. 4.

<sup>133</sup> *Id.* at art. 6.

prior consent from the importing country.<sup>134</sup> Furthermore, the convention obligates an exporting party to bar an export if it believes that the wastes will not be managed in an environmentally friendly manner.<sup>135</sup> Articles 8 and 9 require a party to re-import any hazardous waste exports when the obligations of the convention are not met.<sup>136</sup> Finally, Article 10 states that the parties will cooperate with each other to “improve and achieve environmentally sound management of hazardous wastes and other wastes.”<sup>137</sup> As of February 23, 2005, 164 parties have ratified the Basel Convention.<sup>138</sup> The United States is a signatory but has not ratified the Convention.<sup>139</sup>

Critics of the Basel Convention claim it is ineffective in limiting the transboundary movement of hazardous wastes.<sup>140</sup> They charge that the failure to create a fund to deal with international hazardous waste accidents, the exemption of all waste transports made pursuant to bilateral or multilateral agreements with non-parties, and the lack of formal policing methods make the Basel Convention too easy to circumvent.<sup>141</sup> Most importantly, environmentalists claim that by creating a procedural roadmap, the Basel Convention actually serves to facilitate rather than limit transboundary movement of hazardous wastes between parties.<sup>142</sup>

In 1995, in an effort to address these and other concerns, the parties to the Basel Convention authorized the adoption of the Ban Amendment.<sup>143</sup> The Ban Amendment prohibits the movement of wastes from OECD nations to non-OECD nations.<sup>144</sup> This amendment, if adopted, will significantly increase the regulatory power of the Basel Convention. As of February 23, 2005, fifty-six of the sixty-two parties required for the Ban Amendment’s enactment ratified the amendment.<sup>145</sup>

On December 10, 1999, in an effort to further strengthen the Basel Convention, the parties developed the Basel Protocol on Liability and

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<sup>134</sup> *Id.* at art. 4(1)(c).

<sup>135</sup> *Id.* at art. 4(2)(e).

<sup>136</sup> *Id.* at arts. 8, 9.

<sup>137</sup> *Id.* at art. 10.

<sup>138</sup> UNITED NATIONS ENVIRONMENT PROGRAMME, *Ratifications* [hereinafter *Basel Ratifications*], at <http://www.basel.int/ratif/frsetmain.php> (last visited June 24, 2005).

<sup>139</sup> *Id.*

<sup>140</sup> Choksi, *supra* note 123, at 519.

<sup>141</sup> *Id.*

<sup>142</sup> *Id.* at 520, n. 67 (explaining that “bad” technology transfers actually leads to increases in the production of hazardous wastes).

<sup>143</sup> Amendment to the Basel Convention, Sept. 22, 1995, at <http://www.basel.int/pub/baselban.html> (last visited June 24, 2005).

<sup>144</sup> *Id.*

<sup>145</sup> *Basel Ratifications*, *supra* note 138.

Compensation.<sup>146</sup> The Protocol set up a liability mechanism to provide compensation for those injured by the transboundary transportation of hazardous wastes.<sup>147</sup> Under the Protocol, individual nations would impose a cap on liability and require notifiers, exporters, and importers to carry insurance, bonds or other financial guarantees to cover their liability.<sup>148</sup> As of February 3, 2005, four nations have ratified the Protocol.<sup>149</sup> The Protocol will come into effect upon ratification by twenty countries.<sup>150</sup>

Although the Basel Convention represents a watermark in the international regulation of hazardous wastes, many scholars plausibly argue that the entire agreement is invalid as a result of its conflict with the General Agreement on Tariffs and Trade (GATT).<sup>151</sup> GATT was organized in 1947 with the purpose of reducing barriers to international trade and eliminating discriminatory treatment in international commerce.<sup>152</sup> The core principles of GATT are the most-favored nation status and the national treatment obligations. Under the most-favored nation principle in Article I, favored status granted by one party to the products of another is automatically granted to all countries producing a similar product.<sup>153</sup> This principle seeks to ensure that, once imported, products from various nations receive the same treatment in internal markets as domestic and other likewise imported products. Under the national treatment obligation of Article III, a country may not discriminate between domestically produced goods and the same imported goods.<sup>154</sup> Paragraph 1 establishes that internal taxes, laws, and regulations "should not be applied . . . so as to afford protection to domestic production."<sup>155</sup> Article XI of GATT prohibits restrictions such as quotas or bans on imported goods.<sup>156</sup> Article XI, Section 1 states:

No prohibitions or restrictions other than duties, taxes, or other charges, whether made effective through quotas, import or export licenses or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or

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<sup>146</sup> Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal, Dec. 10, 1999, at <http://www.basel.int/meetings/cop/cop5/docs/prot-e.pdf> (last visited June 24, 2005).

<sup>147</sup> *Id.*

<sup>148</sup> *Id.* at arts. 12, 14.

<sup>149</sup> Basel Ratifications, *supra* note 138.

<sup>150</sup> *Id.*

<sup>151</sup> See Choksi, *supra* note 123, at 536; see Luster, *supra* note 62, at 113.

<sup>152</sup> General Agreement on Tariffs and Trade, Oct. 30, 1947, 55 U.N.T.S. 308 [hereinafter GATT].

<sup>153</sup> *Id.* at art. I.

<sup>154</sup> *Id.* at art. III.

<sup>155</sup> *Id.*

<sup>156</sup> *Id.* at art XI.

on the exportation or sale for export of any product destined for the territory of any other contracting party.<sup>157</sup>

These restrictions are subject to some exceptions under Article XX for the protection and conservation of natural resources, human, animal, plant life, and cultural values.<sup>158</sup>

Although GATT, through Article XX, permits some exemptions for environmental protection, it is unclear whether these exemptions are sufficient to protect against bulk water transfers. Under Article XX(b) a government may adopt measures that restrict trade so long as they are “necessary to protect human, animal or plant life or health.”<sup>159</sup> However, for a government to utilize this exemption, it must also restrict domestic consumption, a move that may not be possible given social or economic needs.<sup>160</sup> Furthermore, under the wording of Article XX(b), the country seeking to enact the exemption must prove to the WTO that the regulation or ban is “necessary to protect human, animal or plant life or health.”<sup>161</sup> For a country seeking to regulate or block ship imports, hurdling the necessity standard could prove quite difficult.

A GATT panel recently held that exceptions to Article XI could only be invoked if the party had no other reasonable alternatives and that those restriction measures represent the choice least restrictive to trade.<sup>162</sup> Applying this analysis, the Basel Convention restrictions on the transboundary movement of recyclable and recoverable wastes between party and non-party nations may violate GATT’s principle goal of eliminating preferential trade status.<sup>163</sup> Under the Vienna Convention, GATT would supercede the Basel convention in cases where both are parties to GATT and only one is party to the Basel Convention.<sup>164</sup> Since the U.S. is not yet a party to the Basel Convention, GATT would supercede Basel restrictions as between the U.S. and any state party.

## 2. The Stockholm Convention

The Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention) establishes a duty on ratifying parties to prevent the contamination

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<sup>157</sup> *Id.* at art. XI(1).

<sup>158</sup> *Id.* at art XX.

<sup>159</sup> *Id.* at art. XX(b).

<sup>160</sup> Milos Barutciski, *Trade Regulation of Fresh Water Exports: The Phantom Menace Revisited*, 28 CAN.-U.S. L. J. 145, 151 (2002).

<sup>161</sup> GATT, *supra* note 152, at Art. XX(b).

<sup>162</sup> WTO, *Appellate Body Report on European Communities-Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R (Mar. 12, 2001), 40 I.L.M. 1193, para. 175 (2001) (citing the WTO lower Panel’s decision on the matter).

<sup>163</sup> Choksi, *supra* note 123, at 536; Luster, *supra* note 62, at 118.

<sup>164</sup> Luster, *supra* note 62, at 123.

of foreign countries by Persistent Bioaccumulative Toxic substances (PBTs).<sup>165</sup> The Stockholm convention obligates parties to regulate the production and use of persistent organic pollutants.<sup>166</sup>

Under the Stockholm Convention, parties have a duty to regulate and minimize the impacts of PBTs within their borders and to prevent harm outside those borders.<sup>167</sup> While not specifically dealing with the ship scrapping issue, the Stockholm Convention is nevertheless important because of the duties imposed on states by Article 3(4) "to consider persistence, bioaccumulation, potential for long-range environmental transport, and adverse effects when (if ever) it reassesses a chemical already in use."<sup>168</sup> In addition, Article 3(2) specifically limits importation and exportation of PCBs unless environmentally sound disposal and use are provided for.<sup>169</sup> Presently, there are 151 signatories and 97 parties to the convention.<sup>170</sup> Although the U.S. is currently only a signatory, the Stockholm Convention enjoys bipartisan support in Congress as well as the support of the president.<sup>171</sup> With this support, it is likely to be ratified.<sup>172</sup>

### 3. International Maritime Organization Guidelines

In international shipping, the International Maritime Organization (IMO) is one of the most influential agencies. In December of 2003, the UN-based IMO instituted a series of voluntary guidelines aimed at improving the ship disposal process.<sup>173</sup> The IMO, with its mandate to prevent marine pollution through the adoption and implementation of international shipping rules and standards,

<sup>165</sup> Stockholm Convention on Persistent Organic Pollutants, May 22, 2001, 40 I.L.M. 532, pmb1. (2001) [hereinafter Stockholm], available at [http://www.pops.int/documents/convtext/convtext\\_en.pdf](http://www.pops.int/documents/convtext/convtext_en.pdf) (last visited June 24, 2005).

<sup>166</sup> *Id.*

<sup>167</sup> *Id.*

<sup>168</sup> *Id.* at art. 3(4).

<sup>169</sup> *Id.* at art. 3(2).

<sup>170</sup> Stockholm Convention on Persistent Organic Pollutants, May 22, 2001 [hereinafter Stockholm Ratifications], at <http://www.pops.int/documents/signature/signstatus.htm> (last visited June 24, 2005) (listing signatories to Stockholm Convention and whether they have ratified).

<sup>171</sup> Ronald Fein, *Should the EPA Regulate Under TSCA and FIFRA to Protect Foreign Environments from Chemicals Used in the United States?*, 55 Stan. L. Rev. 2153, 2177 (2003).

<sup>172</sup> *Id.*

<sup>173</sup> See Int'l Maritime Org., *Resolution A.962(23): IMO Guidelines on Ship Recycling* (2003) [hereinafter IMO], at [http://www.imo.org/includes/blastDataOnly.asp/data\\_id%3D11404/ResShiprecycling962.pdf](http://www.imo.org/includes/blastDataOnly.asp/data_id%3D11404/ResShiprecycling962.pdf) (last visited June 24, 2005); Robin Townsend, *IMO adopts new Voluntary 'guidelines on ship recycling'*, LLOYD'S REGISTER, Dec. 9, 2003 [hereinafter Lloyd's Register], at <http://www.cdlive.lr.org/information/Documents/classnews/2003/cn3003.pdf> (last visited June 24, 2005).

advocates a “Green Passport” approach to ship breaking.<sup>174</sup> Shipbuilders and designers are encouraged to use alternatives to hazardous materials in designing their ships.<sup>175</sup> In the case of existing ships, the guidelines push for owners to develop and carry a detailed list of hazardous wastes.<sup>176</sup> Under the guidelines, ship owners are encouraged to develop a “Ship Recycling Plan” which would include the identification of suitable recycling facilities under IMO guidelines.<sup>177</sup> Those who oppose the guidelines may cite their voluntary nature and the lack of enforcement mechanisms to encourage compliance.

The development of federal and international regulations has led to an increased debate about whether the U.S. government has any legal obligations to manage the transboundary movement of toxic wastes. A principal point of debate is whether or not the U.S. government has a duty to consider foreign environmental impacts when making policy decisions. For if such a duty exists, to what extent does it constrain U.S. policy?

*C. What are US obligations with respect to export of toxic chemicals?*

Presently, EPA does not consider environmental impacts in other nations when making regulatory decisions.<sup>178</sup> Under TSCA and other environmental laws, EPA views its mandate as protecting health and the environment within U.S. borders.<sup>179</sup> Case history seems to support this position. In *Foley Bros. v. Filardo*, the U.S. Supreme Court ruled that “legislation of Congress, unless a contrary intent appears, is meant to apply only within the territorial jurisdiction of the United States.”<sup>180</sup> In *Corrosion Proof Fittings v. EPA*, the Fifth Circuit ruled that EPA has the discretionary ability to exclude consideration of the effects of its decisions on foreign people or entities.<sup>181</sup> Applying *Chevron* deference, the Fifth Circuit ruled that EPA decision to explicitly exclude “foreign exposures and resulting cancer cases” from health impacts analysis was permissible.<sup>182</sup>

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<sup>174</sup> IMO, *supra* note 173, at 8.

<sup>175</sup> *Id.* at 10.

<sup>176</sup> *Id.* at 9.

<sup>177</sup> *Id.* at 14.

<sup>178</sup> Fein, *supra* note 171, at 2169.

<sup>179</sup> *Id.*

<sup>180</sup> *Foley Bros. v. Filardo*, 336 U.S. 281, 285 (1949). In *Foley*, an American citizen brought suit under the Eight Hour Law, 40 U.S.C. § 324 (1940), for overtime pay for work done in excess of eight hours per day on a construction project in Iraq and Iran. The Supreme Court struck down applicability of the law. The Court determined that there was nothing in the language of the Act “that [gave] any indication of a congressional purpose to extend its coverage beyond places over which the United States has sovereignty or has some measure of legislative control.” *Id.*

<sup>181</sup> Fein, *supra* note 171, at 2171.

<sup>182</sup> *Id.*; *see also* *Chevron v. Natural Res. Def. Council*, 468 U.S. 1227 (1984) (establishing that

Even though EPA does not have to consider foreign effects, they are not necessarily prohibited from doing so. The belief that the U.S. government should consider foreign effects goes all the way back to the 1941 *Trail Smelter* case.<sup>183</sup> In *Trail Smelter*, a U.S.-Canadian arbitration tribunal held that “no state may use or permit the use of its own territory so as to cause injury in or to another territory.”<sup>184</sup> Since *Trail Smelter*, the U.S. repeatedly supported this holding through their participation in international conventions such as the Stockholm Convention and Rio Declaration on Environment and Development.<sup>185</sup> These conventions and arbitrations likely give EPA sufficient support to consider foreign effects in regulatory decision-making.<sup>186</sup> Furthermore, international environmental stewardship seems in line with the pilot program authorization text. Specifically, the pilot program requirement that export plans “appropriately address” foreign environmental and worker health concerns suggests that Congress intended for ship owners to consider foreign effects of ship scrapping decisions.<sup>187</sup>

Under international law, the U.S. legal obligations to assertively prevent waste export remains unclear. The rules governing responsibilities under international agreements are spelled out in the Vienna Convention on the Law of Treaties (1969).<sup>188</sup> Under the Vienna Convention, a state generally expresses its consent to be bound to an agreement via a two-step process of signature and ratification.<sup>189</sup> As a signatory, a state is under no legal obligation to follow the law; rather, it has a moral duty to act in furtherance of the objects stated in the treaty.<sup>190</sup> Under Article 18 of the Vienna Convention, a signatory must “refrain

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government agencies have wide deference in interpreting specific issues of statutes when the statute is silent or ambiguous as to that issue).

<sup>183</sup> *Trail Smelter Arbitral Tribunal*, 35 Am. J. Int'l L. 684, 713-714 (1941).

<sup>184</sup> *Id.*

<sup>185</sup> Stockholm Convention on Persistent Organic Pollutants, May 22, 2001, 40 I.L.M. 532, prmb1. [hereinafter Stockholm Convention], available at [http://www.oztoxics.org/waigani/pops/conve\\_c4.html](http://www.oztoxics.org/waigani/pops/conve_c4.html) (last visited June 24, 2004); *Report of the United Nations Conference on the Human Environment*, U.N. GAOR, 27th Sess., princ. 21, at 2 & corr. 1, U.N. Doc. A/CONF.48/14 (1973), reprinted in 11 I.L.M. 1416, 1420 (1972); *Rio Declaration on Environment and Development*, U.N. GAOR, 46th Sess., princ. 2, U.N. Doc. A/CONF.151/5/Rev.1 (1992), reprinted in 31 I.L.M. 874, 876 (1992).

<sup>186</sup> Fein, *supra* note 171, at 2185.

<sup>187</sup> See Spence, *supra* note 86.

<sup>188</sup> See Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 331 [hereinafter Vienna Convention] (entered into force Jan. 27, 1980).

<sup>189</sup> Although the Vienna Convention allows a state to be bound by signature alone, that method is unusual when referring to important formal agreements. “For such agreements, signature is normally ad referendum, i.e., subject to later ratification, and has no binding effect but is deemed to represent political approval and at least a moral obligation to seek ratification.” RESTATEMENTS (THIRD) OF FOREIGN RELATIONS LAW OF THE U.S. § 212, cmt. d (1987).

<sup>190</sup> Vienna Convention, *supra* note 188, at art. 18.

from acts which would defeat the object and purpose of a treaty” until it has ratified the treaty or made clear its intentions not to become a party.<sup>191</sup> Once a state ratifies a treaty through its respective governmental bodies, it establishes its full consent to be bound by that treaty.<sup>192</sup>

Since the U.S. has yet to ratify both the Basel and the Stockholm Conventions, it is under no international legal obligations. However, because the U.S. remains a signatory to both conventions and has made no vocal announcement of intent to abandon them, it has a moral obligation not to violate the spirit of these treaties.<sup>193</sup> Given that these treaties deal with limiting the transboundary shipment of hazardous materials, a program to export ships containing toxic chemicals abroad may violate the spirit of these treaties.

Despite the lack of clear international legal obligations on the U.S. to reduce transboundary movement of hazardous wastes via international conventions, the U.S. may still be obligated to limit exports as a result of Customary International Law (CIL). Under the principle of CIL, a practice is considered binding if it meets two criteria; 1) it must be a general and consistent state practice and 2) it must be followed by states due to a sense of obligation.<sup>194</sup>

According to comments and illustrations of the Restatements (Third) of Foreign Relations Law of the U.S., “practices of states” include a wide variety of acts ranging from diplomatic activities and instructions to official statements of policy.<sup>195</sup> To qualify as general and consistent, a practice need not be universally followed, but it must reflect wide acceptance among the states involved in the activity.<sup>196</sup> In order to meet the second prong of the CIL test, states must follow the practice from “a sense of legal obligation.”<sup>197</sup> This criteria, also known as *opinio juris sive necessitatis*, generally develops when states reach a point at which they believe that as a result of habit or courtesy, they are legally obligated to comply with the practice.<sup>198</sup> Widespread adherence to international agreements such as the Basel and Stockholm Conventions can contribute to the development of CIL.<sup>199</sup> Furthermore, the relatively short passage of time in which an issue has developed into prominence is not a bar to

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<sup>191</sup> *Id.*

<sup>192</sup> RESTATEMENTS (THIRD) OF FOREIGN RELATIONS LAW OF THE U.S. § 212, cmt. j (1987).

<sup>193</sup> Vienna Convention on the Law of Treaties Between States and International Organizations or Between International Organizations, Mar. 21, 1986, art. 18, available at <http://www.un.org/law/ilc/texts/trbtstat.htm> (last visited June 24, 2005).

<sup>194</sup> RESTATEMENTS (THIRD) OF FOREIGN RELATIONS LAW OF THE U.S. § 102, cmts. b, c (1987).

<sup>195</sup> *Id.* at cmt. b.

<sup>196</sup> *Id.*

<sup>197</sup> *Id.* at cmt. c.

<sup>198</sup> *Id.*

<sup>199</sup> *Id.* at cmt. I; see also North Sea Continental Shelf Cases (Federal Republic of Germany v. Denmark & Netherlands), 1969 I.C.J. 3, 28-29, 37-43 [hereinafter North Sea].

the formation of CIL.<sup>200</sup>

United States courts have long recognized the binding characteristics of CIL.<sup>201</sup> CIL is considered “a kind of federal law, and like treaties and other international agreements, it is accorded supremacy over State law by Article VI of the Constitution.”<sup>202</sup> Should CIL exist with respect to shipbreaking exports, the U.S. would be obligated to follow it and adjust its policy in conformity.

In the case of ship scrapping regulations, there is a good argument for a recent development of CIL. Both the Basel and Stockholm Conventions have 163 and 151 parties respectively expressing some consent to be bound.<sup>203</sup> These agreements, together with new IMO guidelines and actions by various state environmental agencies, lend support to the theory that states feel an obligation to minimize transboundary waste shipments. Given these factors, it is likely that CIL has developed with regards to shipbreaking.

#### IV. LEGAL CHALLENGES TO THE PILOT PROGRAM

##### *A. The District Court Decision in BAN v. MARAD*

The award of the pilot program contract to a foreign shipyard created concern by environmental groups that additional exports would follow. On September 26, 2003, citing environmental concerns and violations of various federal environmental laws and the Administrative Procedure Act (APA), the Basel Action Network (BAN) and the Sierra Club sought an injunction to prevent MARAD from exporting NRDF ships.<sup>204</sup>

In its complaint, BAN asserted that the exportation of these ships violated four environmental regulations that give rise to a cause of action under the

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<sup>200</sup> See North Sea, *supra* note 199, at 44 (ruling that “the passage of only a short period of time is not necessarily, or of itself, a bar to the formation of a new rule of customary international law”).

<sup>201</sup> RESTATEMENTS (THIRD) OF FOREIGN RELATIONS LAW OF THE U.S., ch. 2, prt. I, intro. cmt. (1987).

<sup>202</sup> *Id.*

<sup>203</sup> Basel Ratifications, *supra* note 138; Stockholm Ratifications, *supra* note 170. In October 2004, members at the Seventh Conference of the Parties to the Basel Convention affirmed that end-of-life ships could be considered toxic waste under international law. As a result, member states are now obligated to apply the Basel Convention terms to shipbreaking. *Draft Decision on the environmentally sound management of ship dismantling*, Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 7th Sess., U.N. Environment Programme, Annx., U.N. Doc. UNEP/CHW.7/CRP.21 (2004), available at [http://www.unon.org/css/doc/chw/chw\\_07/chw\\_7in/crp-21/K0431124crp%2021.doc](http://www.unon.org/css/doc/chw/chw_07/chw_7in/crp-21/K0431124crp%2021.doc) (last visited June 24, 2005); BAN/GREENPEACE, *Toxic Ship Dumping to be Controlled* (Oct. 29, 2004), available at [http://www.ban.org/ban\\_news/toxicship.html](http://www.ban.org/ban_news/toxicship.html) (last visited June 24, 2005).

<sup>204</sup> *Basel Action Network v. Maritime Admin.*, 285 F. Supp. 2d 58, 59 (D.D.C. 2003).

APA.<sup>205</sup> First, BAN argued that MARAD violated provisions of the PCB ban by not obtaining an exemption from the EPA for its exports.<sup>206</sup> Second, BAN asserted that MARAD violated the NMHA's best value provision because better value domestic scrappers were available and towing across rough seas posed an unnecessary environmental hazard.<sup>207</sup> Third, BAN argued that MARAD and EPA failed to follow NEPA requirements when they relied on 1994 and 1997 EA's without accounting for new information related to ship movements.<sup>208</sup> Finally, BAN argued that MARAD and EPA violated the notice and consent procedural requirements in RCRA governing the export and disposal of hazardous waste to OECD nations.<sup>209</sup> Based on these claims, BAN sought preliminary and permanent injunction prohibiting the export of any ships from the JRRF.<sup>210</sup>

In defense of its position not to seek a PCB export exemption, MARAD relied on a May 2003 "enforcement discretion" letter from EPA stating they would not enforce the PCB export ban against MARAD so long as it met certain conditions.<sup>211</sup> Rather than an exemption, MARAD asserted that the EPA non-enforcement letter constitutes a permissible discretionary decision by EPA not to take any enforcement action.<sup>212</sup> As such, MARAD contended that a new PCB export exemption is unnecessary.<sup>213</sup>

In regards to the NMHA claim, MARAD argued that its award of the contract to the UK company via a competitive bidding program represented the best overall value to the Government.<sup>214</sup> In response to claims that towing the ships across the Atlantic posed significant environmental risks, MARAD argued that their safeguard measures were more than adequate to protect the environment. Specifically, MARAD stated that the purging of all liquid and removable solid PCBs from ships prior to transit along with the issuance of a seaworthiness certification by the Coast Guard ensured that the transport posed no serious

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<sup>205</sup> *Id.* at 62; *see also* First Amended Complaint at 13, *Basel Action Network v. Maritime Admin.*, 285 F. Supp. 2d 59 (D.D.C. 2003) (No. 03-02000) [hereinafter First Amended Complaint] (citing the violation of RCRA agreements between the UK and the US).

<sup>206</sup> *Basel Action Network*, 285 F. Supp. 2d at 60. Plaintiffs relied on Section 20 of TSCA (15 U.S.C.A. §2619) citizen suit provision which authorizes actions to enforce "any rule" against "any person [including the United States]" alleged to be in violation of TSCA. This provision is subject to a 60 day notice of violation provision.

<sup>207</sup> *Id.*

<sup>208</sup> *Id.* at 62.

<sup>209</sup> *Id.* at 62; *See also* First Amended Complaint, *supra* note 205, at 9.

<sup>210</sup> First Amended Complaint, *supra* note 205, at 14.

<sup>211</sup> *Basel Action Network*, 285 F. Supp. 2d at 61.

<sup>212</sup> *Id.*

<sup>213</sup> *Id.*

<sup>214</sup> *Id.*

threats to the environment.<sup>215</sup>

As a defense to claims that MARAD violated NEPA, MARAD asserted that a new EA or EIS was not necessary to allow the program to proceed.<sup>216</sup> MARAD stated that a 1994 EA entitled “Environmental Analysis of the Maritime Administration Ship-Disposal Program,” a 1997 EA entitled “Environmental Assessment of the Sale of [NRDF] Vessels for Scrapping,” and 2002 MARAD reports to Congress on the status of the Vessel Scrapping Program constituted the “functional equivalent” of an EA.<sup>217</sup> Since these various reports discuss shipbreaking disposal proposals, MARAD insisted that a new EA was unnecessary.

In its initial decision, the District Court considered whether or not the court should issue a temporary restraining order against MARAD. Regarding the PCB export ban, the District Court found there was insufficient evidence to show that the decision by MARAD to circumvent the rulemaking process was “arbitrary, capricious, and not in accordance with the procedures required by the APA.”<sup>218</sup> The District Court ruled that the defendants presented a “cognizable argument” that the EPA was within its discretionary right not to enforce the export ban. Given the lack of sufficient evidence, the District Court tabled this argument for a later date.<sup>219</sup> With respect to charges of violation of the NMHA, the District Court found that defendants sufficiently demonstrated their case that the export program represented the best value and only subjected minimal harm to the environment.<sup>220</sup>

With regards to the NEPA claim, the District Court determined that the two reports submitted to Congress in conjunction with the ship export program constituted the “functional equivalent” of an EA and fulfilled MARAD’s obligations to perform an EA with respect to the four ship pilot program.<sup>221</sup> In reaching its decision, the District Court determined that the holding from *Amoco Oil Co. v. EPA* governs.<sup>222</sup> In *Amoco Oil*, the D.C. Circuit exempted EPA’s actions under the Clean Air Act from NEPA EIS requirements because “the

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<sup>215</sup> *Id.* at 62.

<sup>216</sup> *Id.* at 63. EPA relied on the “functional equivalent” doctrine from *Amoco Oil Co. v. EPA*, 501 F.2d 722, 749 (D.D.C. 1974) as their defense to this charge. In *Amoco Oil*, the Court of Appeals held that EPA’s actions under the Clean Air Act were sufficient to exempt them from NEPA requirements since they were “procedurally and substantively” the functional equivalent of compliance with NEPA. EPA maintains that two reports issued to Congress under the “no significant impact” finding for the 2003 Pilot Program were sufficient to meet the NEPA requirements since Congress was aware of these EA’s when authorizing the program.

<sup>217</sup> *Basel Action Network*, 285 F. Supp. 2d at 60.

<sup>218</sup> *Id.* at 61.

<sup>219</sup> *Id.* at 62.

<sup>220</sup> *Id.*

<sup>221</sup> *Id.* at 63.

<sup>222</sup> *Amoco Oil Co. v. EPA*, 501 F.2d 722, 750 (D.C. Cir. 1974).

Clean Air Act provides, procedurally and substantively, for the 'functional equivalent' of compliance with NEPA."<sup>223</sup> Here, the District Court ruled that since Congress was aware of this functional equivalent standard and called for "extraordinary expeditious decision-making" in the program description, MARAD's reports to Congress serve as the "functional equivalent" of an EA for the four ship export program. With respect to the remaining nine ships, the District Court found that since these exports were not part of the pilot program NEPA requires a supplemental EA.<sup>224</sup> Based on this finding, the District Court issued a temporary restraining order blocking the export of the nine ships.<sup>225</sup>

This case represents one of the principle dilemmas in the shipbreaking argument. While environmentalists concede that keeping these ships in a state of limbo is a bad idea, it is not clear what should be done with them. Many environmentalists see this export program as the first step in testing the "export waters."<sup>226</sup> They cite reports that show U.S. officials have contacted Chinese and Mexican ship scrappers about the possibility of future exportations.<sup>227</sup> Opponents of these exports fear that once exports are allowed to begin, international environmental catastrophe becomes inevitable.<sup>228</sup>

#### B. Where does BAN v. MARAD leave us?

The results of this lawsuit represent only a partial victory for environmental groups. BAN successfully argued that the 1994 and 1997 EAs were too remote and general for a new program, forcing MARAD to re-evaluate their project. However, given MARAD's assertions that an export project is desirable, a re-evaluation will most likely only delay the inevitable.

In order to comply with NEPA, the D.C. Circuit established four criteria for reviewing and agency's decision not to prepare an EIS. Specifically, the court looks at:

- (1) whether the agency took a "hard look" at the problem<sup>229</sup>; (2) whether the agency identified the relevant areas of environmental concern; (3) as to

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<sup>223</sup> *Id.*

<sup>224</sup> *Basel Action Network*, 285 F. Supp. 2d at 63.

<sup>225</sup> *Id.* at 64.

<sup>226</sup> Brewer, *supra* note 104.

<sup>227</sup> *Id.*; see Peter S. Goodman, *Where to dispose of VA's 'Ghost Fleet'? U.S. seeks international sites for junking old ships despite concerns over pollution*, WASHINGTON POST, Mar. 12, 2003, available at [http://www.ban.org/ban\\_news/where\\_to\\_dispose.html](http://www.ban.org/ban_news/where_to_dispose.html) (last visited June 24, 2005); Joseph McCann, *'Ghost Fleet' may resume sailing to overseas yards, Scrap, National Defense Act Authorizes Pilot Program to Study Foreign Recycling of Govt Ships*, AMERICAN METALS MARKET, Dec. 10, 2002, at 6.

<sup>228</sup> Goodman, *supra* note 227.

<sup>229</sup> See *Kleppe v. Sierra Club*, 427 U.S. 390, 410, n. 21 (1976), for further explanations of the hard look requirement. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989).

the problems studied and identified, whether the agency made a convincing case that the impact was insignificant; and (4) if there were an impact of true significance, whether the agency convincingly established that changes in the project sufficiently reduced it to a minimum.<sup>230</sup>

According to the Ninth Circuit, the hard look “must be timely, and it must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made.”<sup>231</sup> The hard look requirement applies whenever an “irreversible and irretrievable commitment of resources” occurs.<sup>232</sup> In the present case, contracts involving the dedication of significant portions of the pilot program budget and representing large policy shifts without performing a program specific study would likely violate the hard look principle.<sup>233</sup> The District Court’s decision that thirteen ships constitute a major federal action goes hand in hand with the assertion that such an action would require its own separate finding.

The District Court determination that EPA was in violation of NEPA triggered action by EPA to undertake a new EA.<sup>234</sup> Applying the holdings from *Metcalf* and *Peterson*, EPA was required to undertake a substantive analysis supported by the record.<sup>235</sup> In response to this lawsuit, EPA issued a new EA stating that the ship’s voyage would have no significant impact on the environment.<sup>236</sup>

Following this EA, the District Court issued an order dismissing the case.<sup>237</sup> In its decision, the District Court ruled that the new EA was correct in only considering the environmental impacts within territorial waters, that it took a hard look at the environmental consequences of ship exports, and that the subsequent FONSI determination of the EA was adequate.<sup>238</sup> As to the TSCA claim, the District Court dismissed the allegation based on the fact that BAN

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<sup>230</sup> *Sierra Club v. Peterson*, 717 F.2d 1409, 1413 (D.C. Cir. 1983); *see also Maryland-Nt'l Capital Park & Planning Comm'n v. U.S. Postal Serv.*, 487 F.2d 1029, 1040 (D.C. Cir. 1973).

<sup>231</sup> *Metcalf v. Daley*, 214 F.3d 1135, 1142 (9th Cir. 2000). The hard look requirements do not limit the ability of the agencies to formulate proposals and pursue courses of action harmful to the environment. *Robertson*, 490 U.S. at 350. Rather, they seek to inform the agency and “ensure that environmental consequences have been fairly evaluated.” *Id.* at 352.

<sup>232</sup> *Metcalf*, 214 F.3d at 1145; *Peterson*, 717 F.2d at 1409.

<sup>233</sup> *Basel Action Network v. Maritime Admin.*, 285 F. Supp. 2d 58, 63 (D.D.C. 2003).

<sup>234</sup> EA REPORT, *supra* note 95, at 7.

<sup>235</sup> *Metcalf*, 214 F.3d at 1141.

<sup>236</sup> Availability of Final Environmental Assessment and Finding of No Significant Impact, 69 Fed. Reg. 45,370 (July 29, 2004); Adam Nathan, *More Toxic Ships are cleared for breaking in UK*, SUNDAY TIMES (LONDON), Mar. 7, 2004, at 8.

<sup>237</sup> Judges Final Ruling, *Basel Action Network*, 285 F. Supp. 2d 58 (No. 03-02000) [hereinafter Judges Final Ruling].

<sup>238</sup> *Id.* at 20-25.

filed suit before the statutorily required sixty day notice had passed.<sup>239</sup> Finally, the District Court dismissed the RCRA allegation on grounds that there was neither an “imminent and substantial’ harm” nor a current and ongoing violation of a RCRA standard, order, requirement or the like.<sup>240</sup> Based on this decision, it appears that so long as MARAD and EPA follow proper procedure, MARAD will be allowed to continue with its exportation program. In this sense, the lawsuit’s true intent, obtaining an injunction against ship exports, was frustrated.

Though the exports will likely proceed, EPA and MARAD will be forced to institute changes. Despite their findings of no impacts and promises of tight regulation, EPA has done a poor job of overseeing of ship export program. In December 2003, the UK High Court found that Able UK lacked the necessary waste management licenses and planning permissions from the UK Environmental Agency to undertake disposal operations.<sup>241</sup> The High Court further found that a promised twenty-four acre dry dock facility did not exist and that permits to build the dry dock were never granted.<sup>242</sup> Based on these findings, it appears that EPA’s initial assurances of pre-export site visits and demands for full environmental compliance were inadequate.

Through the use of citizen suit provisions, BAN and other non-governmental organizations ensure EPA and MARAD’s close adherence to federal regulations.<sup>243</sup> Given the amount of scrutiny BAN subjected EPA procedures to, future export programs by MARAD are likely to face greater regulatory hurdles. The threat of these citizen suits will encourage EPA to ensure that conditions placed on foreign shipyard are met. With EPA’s promise to examine overseas facilities and obtain maximum remediation prior to export, EPA has essentially conceded that they are now factoring in foreign environmental and human rights impacts when considering whether to approve export projects. In the end, watchdog agencies such as BAN and Sierra Club may have forced EPA to do the very thing it has refused to do, regulate with an eye towards protecting foreign environments and working conditions.

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<sup>239</sup> *Id.* at 27. According to the civil suit provision of TSCA, no civil action may be commenced until sixty days after the plaintiff has given notice of a violation to the Administrator or person alleged to have committed the violation. 15 U.S.C. § 2619(b)(1).

<sup>240</sup> *Id.* at 33.

<sup>241</sup> Nathan, *supra* note 236; Gavin Havery, *Ghost Ships could be on their way home to the US by May*, NORTHERN ECHO, Jan. 10, 2004, at 15.

<sup>242</sup> Harvey, *supra* note 241; BASEL ACTION NETWORK, *Toxic Ship Export Deal Declared Illegal by UK* (Nov. 3, 2003), at [http://www.ban.org/ban\\_news/toxic\\_ship\\_export\\_deal\\_declared.html](http://www.ban.org/ban_news/toxic_ship_export_deal_declared.html) (last visited June 24, 2004).

<sup>243</sup> See 15 U.S.C. § 2619(a) (2005); see also 42 U.S.C.S. § 6972 (2005) (describing the citizen suit provisions of TSCA and RCRA, respectively).

## CONCLUSION: A BETTER WAY TO DO THINGS

Although shipbreaking exports pose significant risks to the environment, a well-run export program may also provide some benefits. Given the lack of domestic infrastructure, the urgency of disposal needs, and the lack of money available for disposal, exporting these ships to foreign markets, where labor and operation costs are lower, makes sense. Under such a program, EPA scrutiny of foreign shipyards can serve as an impetus for these yards to introduce environmentally responsible practices. As a result, all shipbreaking operations would be positively impacted.

In addition to the existence of lax environmental standards and a cheap labor force, there is a higher market demand for recycled steel and other recyclable items from ships in non-OECD countries than in OECD countries.<sup>244</sup> Consequently, the prices obtainable per ton of steel are higher in developing countries.<sup>245</sup> For some of the countries involved in the scrapping industry, the raw materials provided by ship scrapping “can be a considerable part of the steel used in that country.”<sup>246</sup> In those countries, ship scrapping is viewed as a cost effective way to import necessary raw materials while at the same time generating employment.

Since 1990, the price of steel has increased dramatically, most significantly in the past few years.<sup>247</sup> The rise in industrial output in countries like India and China, coupled with supply shortages has led to all time high prices for steel.<sup>248</sup> Whereas the average steel price for ships from 1994-2002 was \$148 per unladen ton (ldt), today a common price is between \$300 and \$400 per ldt.<sup>249</sup> In recent months, the price of steel has reached upwards of \$420 ldt.<sup>250</sup> Furthermore, these prices are likely to stay high for at least the near future.<sup>251</sup> The premium price that MARAD could obtain on the sale of their vessels could help defray some of the costs of complete remediation of the vessels prior to their

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<sup>244</sup> DANISH ENV'L PROT. AGENCY, *Shipbreaking in OECD* (2003), at [http://www.mst.dk/homepage/default.asp?Sub=http://www.mst.dk/udgiv/publications/2003/87-7972-588-0/html/kap02\\_eng.htm](http://www.mst.dk/homepage/default.asp?Sub=http://www.mst.dk/udgiv/publications/2003/87-7972-588-0/html/kap02_eng.htm) (last visited June 24, 2005).

<sup>245</sup> *Id.*

<sup>246</sup> *Id.*

<sup>247</sup> *Id.* at fig. 1.

<sup>248</sup> LLOYD'S LIST, *supra* note 7.

<sup>249</sup> DANISH ENV'L PROT. AGENCY, *supra* note 244, at tbl. 2.3; Brian Reyes, *Owners wary but scrap rates hold up*, LLOYD'S LIST, Feb. 28, 2005, at 4.

<sup>250</sup> Shirish Nadkarni, *Alang's breakers left with the scraps: As the price per ldt soars to over \$400 erstwhile scrap champion India stands by as China and Bangladesh fight over the largest tankers*, LLOYD'S LIST, Apr. 16, 2004, at 4.

<sup>251</sup> Tony Gray, *Heavy metal may call tune on newbuild prospects: In a darker side to China's economic miracle, the shortage of steel is causing pain for ship buyers and yards*, LLOYD'S LIST, Mar. 26, 2004, at 4 (discussing the impacts of high steel demands on scrap steel prices).

exportation. While making money on the sales should not be a principal goal of MARAD, finding creative ways to fund the reduction of non-retention ships in the NRDF is an important and worthy goal.

If MARAD decides to continue ship exports, it should take adequate steps to ensure that complete bioremediation of all hazardous wastes occurs prior to export. The current standard of purging all “removable” PCB solids is not enough. Through the use of new bioremediation technologies, PCBs and fuels can be eliminated with minimal cost investment.<sup>252</sup> For materials that are not removable, MARAD should instigate the use of a “green passport” program similar to that promoted by the IMO guidelines.<sup>253</sup> Additionally, MARAD should encourage scrapping countries throughout the world to refuse receipt of non-certified ships.<sup>254</sup>

Although U.S. ship scrapping exports are minimal in comparison to worldwide exports, responsible U.S. leadership on this issue can serve as a roadmap for the rest of the world. Throughout the 1970s and 1980s, the U.S. was a world leader in the environmental movement.<sup>255</sup> Early legislation such as the Clean Water Act, the Clean Air Act, NEPA, and RCRA served as models for nations around the world. During the past decade, the U.S. has lost that edge.<sup>256</sup> Its consistent reluctance to join important international environmental agreements such as the Basel Convention and the Kyoto protocol has tarnished its world image.<sup>257</sup>

Now, more than ever, leadership is necessary. With the IMO’s prohibition on single-hulled tankers coming into full effect, the number of ships on the scrapping market will increase dramatically.<sup>258</sup> A plan that safely and responsibly recycles federal ships could help the U.S. regain its place as a leader

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<sup>252</sup> *Shipbreakers aim at contaminants in effort to cut recycling expenses, Around the States*, HAZARDOUS WASTE SUPERFUND WEEK, July 7, 2003.

<sup>253</sup> See generally IMO, *supra* note 173.

<sup>254</sup> Such a gesture would be consistent with the pilot program’s mandate to “improve international practices and standards for ship dismantlement and recycling . . . [as well as] foster economically and environmentally sound ship recycling abroad.” Bob Stump National Defense Authorization Act for Fiscal Year 2003, Pub. L. No. 107-314, § 3504.

<sup>255</sup> See MICROSOFT ENCARTA ONLINE ENCYCLOPEDIA, *Environment* (4th ed. 2005), available at [http://encarta.msn.com/encyclopedia\\_761566249\\_2/Environment.html](http://encarta.msn.com/encyclopedia_761566249_2/Environment.html) (last visited June 24, 2005).

<sup>256</sup> *Id.*; see also David George, *Worldwatch report: Environmental movement losing steam*, CNN (Jan. 15, 2001), available at <http://archives.cnn.com/2001/NATURE/01/15/state.of.the.world/> (last visited June 24, 2005).

<sup>257</sup> See Kevin Anderson, *Eco-action unclear for Americans*, BBC NEWS ONLINE (Aug. 30, 2002), at <http://news.bbc.co.uk/1/hi/world/americas/2224752.stm> (last visited June 24, 2005); Jim Lobe, *Bush aims to burnish tarnished image*, DAWN (Apr. 21, 2001) (on file with author).

<sup>258</sup> MARINE ENV’T PROT. COMM. [MEPC], IMO, *IMO meeting adopts accelerated single-hull tanker phase-out, new regulation on carriage of heavy fuel oil* (Dec. 1-4, 2003), at [http://www.imo.org/Newsroom/mainframe.asp?topic\\_id=758&doc\\_id=3341](http://www.imo.org/Newsroom/mainframe.asp?topic_id=758&doc_id=3341) (last visited June 24, 2005).

in environmental stewardship and inspire others to follow its lead.