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OIL VESSEL SAFETY RESPONSIBILITY:WHO TO BLAME?

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ABSTRACT

Although the oil industry is to be blamed for most oil disasters, this paper seeks to go beyond the blame game and rather explore ways that can help improve training and monitoring mechanisms, incorporate better technology, and policies in the oil industry in order to minimize oil spill reoccurrence. Some oil-vessel tanker disasters have been caused by pure human error, others have resulted from inadequate monitoring, and control mechanisms, the use of obsolete technology, while some others are due to rogue shipowners exploiting the shortcomings and loopholes in prevailing legislation. Some lessons learnt from previous disasters call for recommendations for improvement in some areas including; instituting better legislation to minimize oil-vessel tanker disasters, acquiring more sophisticated technological monitoring equipment at both vessel-tanker and inspection stations, better training of inspection and monitoring staff, and setting other safeguards to minimize human errors (such as fewer over time hours, sufficient rest time for crew members to minimize fatigue, control of drugs and alcohol consumption) with the goal of reducing oil spill reoccurrence. Therefore, a combination of legislation designed to close loopholes, reducing human errors and acquiring more sophisticated monitoring equipment to foster better standards in the industry are essential in ensuring safety in the oil sector.

Oil Vessel safety Responsibility: Who to Blame?

a) Introduction

Vilifying the big oil companies for most of the tanker disasters and spills is common practice. This in most part is due to the huge profits enjoyed by the industry and its shareholders. In the year 2008, BP made a record $25.9 billion dollars profit, Shell saw profits of up to $31.4 billion and Exxon Mobil saw a hefty $45.22 billion dollars return.[1] These record profits racked up by the big oil companies came mostly as a result of oil prices rising during the third quarter of the year; from $70 to $147 per barrel.[2] In the same year (2008), the oil industry was amongst the top earning industries in the world alongside Network and other Communications with 20.4%; Internet services and retailing 19.4%; Pharmaceutical 19.3%; Medical products and equipment 16.3%; Railroads 12.6%; Financial data services 11.7%; and mining and crude oil exploration earning 11.5%.[3]The record profits did provoke the ire of many consumers who saw these profits emanating directly from record high oil prices. This therefore creates an atmosphere "of us against them." This however should not be the case because there is interdependency between the oil industry and the rest of society. Oil is used in almost every aspect of human life including; manufacturing, technology, construction, automobile, computers, shipping, and so on. Therefore, until the complete production of renewable energy to the total exclusion of fossil fuels (coal, gas and oil), dependency on fossil fuels will still be the principal source of energy to run most businesses and industries.

Nevertheless, it is no surprise that the oil industry has been at the center of anger following a number of high profile and widely publicized disasters. The most damaging to the reputation of the oil industry has been the oil spill that occurred in the United States in 2010. Many believe the company was reluctant to respond to engineers' requests to repair damaged safety valves because it was trying to cut costs. It is fair to say this does not help the oil industry to earn the love of the public. However, the question should be how to make things better?

b) International treaties related to oil-vessel tankers

i. Preventative treaties for oil tanker safety

In order to mitigate the impact of oil spill disasters on the environment, a couple of key international legislation have been enacted, one of which underscores the Preventive Principle which fosters protection of the marine environment, but also requires member states to exercise 'due diligence' in carrying this out. It also ensures that community action is based on the principle of proportionality which requires actions 'not to go beyond' the objectives of the EC Article 5(3).[4] Sundermann[5] contends that pollution of the sea damages the marine ecosystem irreversibly over long time scales, endangering a broad spectrum of resources, from seafood to recreational spaces. Therefore, The 1973/1978 International Convention for the Prevention of Pollution from Ships, also known as the London Convention or Marpol Convention, came about as a result of public pressure following numerous oil tanker disasters like the Torrey Canyon of 1967, The Amoco Cadiz 1978, and Exxon Mobil of

[1] Steve .Hargreaves, "Exxon 2008 Profit: A record $45 billion. The oil company rides $147 crude to set an all-time high despite oil price collapse in back half of the year" Available at:http://money.cnn.com/2009/01/30/news/companies/exxon_earnings/index.htm December 2011.

[2] *Telegraph,* "BP makes record £17bn profits in 2008 on back of oil surge" Available at: http://www.telegraph.co.uk/finance/newsbysector/energy/4443902/BP-makes-record-17bn-profits-in-2008-on-back-of-oil-surge.html December 2011.

[3]*CNNMONE*Y "Top industries: Most profitable 2008" 2009 Available at: http://money.cnn.com/magazines/fortune/fortune500/2009/performers/industries/profits/ December 2011.

[4]Veronica Frank *The European Community and Marine Environmental Protection in the International Law of the Sea: Implementing Global Obligations at the Regional Level.* Matinus NijHoff Publishers pp.77-87 2007

[5] Jurgen. Sundermann, "Survey: Sources, Paths and Effects of Marine Pollution," In: Basedow, J., and Magnus, U.(eds.) *Pollution of the Sea- Prevention and Compensation.* Springer pp.7-12 2007

1989.[6] In a bid to regulate and reduce the frequency of occurrence of these disasters, this convention was drafted as a control mechanism. The Marpol Convention, 1973/78 provides clear provisions with respect to safety in the domain of construction of oil vessels, inspection of oil tankers, ballast water separation, oil-record book; with oil records and records of cargo, proper port procedures for disposal of cargo residue, and port cleaning of tankers. Because of this convention, oil tankers built after 1996 were mandated to have double-hull vessel systems to increase maritime safety. In addition, the European Union regulation (EC) No. 417/2002[7] was enacted to oversee the immediate phasing out of obsolete single-hull vessels banned from American waters from appearing in European waters.

Besides the Marpol Convention 1973/78, there is the Regional Seas Program, 1974[8] which handles issues related to acceleration of the degradation of the world's oceans coastal areas through implementation of sustainable management, and use of marine and coastal environment by encouraging coastal, and neigboring countries to protect their shared marine environment through specific actions.

According to MARPOL[9]any deliberate, negligent, or accidental release of oil and other substances from ships constitutes a serious source of pollution. This treaty thus helps to control illegal dumping of vessel oils. Even though oil spills do not constitute illegal dumping, they still pollute the environment and should therefore be prevented.

The United Nations Convention of the laws of the Seas, 1982[10] is the strongest and most comprehensive global environmental treaty in existence, and has been regarded as a constitutional document setting out the basic legal framework for oceans, and the protection and preservation of the marine environment. This therefore requires users of the seas to make safe and proper use of it without subjecting the resource to pollution and damage.

ii. Liability treaties

The International Convention on Civil Liability for Oil Pollution Damage, 1969 makes provision for compensation to states and persons who have suffered oil pollution damage from spills. The Fund's compensation is, however, limited to damage suffered in the territories including; the territorial seas of contracting states. Also pertaining to the Fund, is provision to indemnify the shipowner or his insurer for a portion of the shipowner's liability under the liability convention. The cap on liability was set at a combined 750 million Special Drawing Rights (SDR) with the amount to be paid under the Civil Liability Convention Fund, CLC/Fund Convention 1971[11] Nonetheless, the Fund will not indemnify a ship owner in the case of wilful misconduct or noncompliance with certain international conventions. Hui[12] points out that the limitation of liability is the first area of contention between the EU and other International conventions, with the EU advocating an increase in the civil liability claims.

In China, the case between the Guangdong province and the vessel owner Hyundai Advance helped expose the limitations of most liability laws. The vessel owner asked the Guangzhou Maritime Court to cap liability com-

[6] CIESIN (n,d) "1954 International Convention for the Prevention of Pollution of the sea by oil" Available at:http://sedac.ciesin.columbia.edu/entri/texts/pollution.of.sea.by.oil.1954.html November 2011.
[7] EU LEX, "Access to European Union Law" https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32003R1726 March 2012
[8] UNEP 2010 United Nations Environment Programme, "1978 International Convention for the Protection of Pollution from Ships" 2003 Available at: http://cep.unep.org/racrempeitc/regulatory-aspect November 2011
[9] *Ibid*
[10] UNESCAP, "Oil Pollution Convention 1954" 2003 Available at: http://www.unescap.org/drpad/vc/orientation/legal/3_marine.htm November 2011.
[11] IMO, "International Convention on the Establishment of an International fund for compensation for oil Pollution damage (FUND)" Available at:http://www.imo.org/About/conventions/Listofconventions/pages/International-convention-on-the-establishment-of-an-international-fund-for-compensation-for-oil-pollution-damage.aspx November 2011.
[12] W. Hui, Recent Developments in the EU Marine Oil Pollution Regime. In: Faure, G.M. and Hu J.(eds.) *Prevention and Compensation of Marine Pollution Damage: Recent Developments in Europe, China and the US*. 2007 Kluwer Law International, pp.137-160 2007

pensation after the Guangdong province, together with other individual victims, lodged a class-action lawsuit against them. Fearing that the case was going against their favor, the vessel owners finally agreed to an out-of-court settlement. This case clearly exposes the shallowness of some laws and legislation in terms of civil liability.[13]

iii. Compensation treaties

Mason[14]argues that although the issue of liability at the international level for oil-vessel accidents compensation is worthy of praise for its level of compensation for environmental damage, more still needs to be done to broaden the definition of damage to incorporate other aspects of environmental damage, and to expand national boundaries' entitlements. Thus, even though the 1969 Civil Liability Convention and the 1971 Fund Convention have made significant progress towards increasing the level of compensation for victims of oil pollution damage, much still needs to be done, especially with the compensation capped at 750 million Special Drawing Rights for benefitting states.

iv. Casualty treaties

The International Convention relating to the Intervention on the High Seas in Case of Oil Pollution Casualties, 1969[15] makes provision for states to take measures deemed necessary to prevent, mitigate or eliminate danger to its coastline in the event of maritime casualty. In addition, the 1990 International Convention on Oil Pollution Preparedness, Response, and Co-operation-UN ESCAP[16]makes provision for emergency preparedness in the event of an oil disaster. Nonetheless, Tan[17] indicates that 99.98% of all oil transported over the oceans gets to their final destinations safely, asserting a dramatic reduction in vessel tanker losses in spite of the high volume of sea trade. However, a couple of rogue ship owners, about 20%, flout the high standards of operation set by International conventions. For this reason, Tan asserts that oil tanker operators believe there is no need for increasing regulations in the industry.[18] This view is, however, not shared by Perrow[19] who pointed out that the frequency of oil disasters, notably the BP oil well explosion of 2010 in the US, is indicative to the fact that more controls are necessary to hold the industry accountable since they have not been able to police themselves, in spite of repeated promises.

c) The Prevalence of Oil Disasters- some underlying causes

i.Amoco Cadiz –Brittany, France 1978

The vessel tanker ran aground in Brittany, off the coast of France on March 16, 1978 and released 223,000 tons of light Iranian and Arabian crude oil and 4,000 tons of bunker fuel into the sea. This oil disaster at the time created a record, in that, it resulted in the greatest amount of marine life ever lost from an oil tanker accident. This saw the death of millions of molluscs, sea urchins, birds, oysters and other marine lives.[20]The cause of the

[13] L.Zhonghua and Z. Zhujun"A Review and Critical analysis on the MSc Illana Oil spill Incident of the Pearl River Estuary." In: Faure, M.G. Lixin, H and Hongjun, S. (eds.) *Maritime Pollution Liability and Policy: China, Europe and the US*. Kluver Law International, pp.401-422 2010

[14] Michael Mason, "Civil Liability for Oil Pollution Damage: Examining the evolving Scope for Environmental Compensation in the International Regime" Marine Policy, Volume **27**(1)1-12 2003

[15] IMO , "International Convention Relating to Intervention on the High Seas in cases of Oil Pollution Casualties,1969". Available at:http://www.imo.org/about/convention/listofconventions/pages/international-convention-relating-to-intervention-on-the-high-seas-in-cases-of-oil-pollution-casualties.aspx November 2011.

[16] UN ESCAP, 2003 "Oil Pollution Convention 1954" Available at: http://www.unescap.org/drpad/vc/orientation/legal/3_marine.htm November 2011.

[17]A.K-J.Tan, *Vessel-Source Marine Pollution* Cambridge University Press, pp.3-39 2006

[18] *Ibid*

[19] C. Perrow, *The Next Catastrophe*: *Reducing our Vulnerabilities to Natural, Industrial, and Terrorist Disasters.* Princeton University Press, pp. xvi. 2011

[20] I.C. White, 2009 "The Sea Empress Oil Spill in Context" Paper presented at the International Conference on the Sea Empress Oil Spill," February 1998, Available at: http://www.itopf.com/uploads/seeec.pdf. November 2011

disaster has been attributed to failure of the vessels' steering wheel in bad weather.[21] Thus, it could be said that the disaster was caused by mechanical error.

ii. Funiwa 5 – Nigeria, 1980

The Funiwa 5 oil well exploded on January 17, 1980 releasing 20,000 tons of crude oil into the Nigeria Delta region, mostly into the mangrove swamps. The blow out happened during the completion of operation by the semi-submersible drilling rig, SEDCO 135C. This spill caused damage to 320 hectares (800 acres) of mangrove forests and the death of oysters and crustaceans.[22]This is another disaster that can be attributed mechanical breakdown.

iii. Exxon Valdez – Alaska, USA, 1989.

On March 24 1989, the Exxon Valdez oil tanker ran aground in the Alaskan Prince Sound in the Bligh Reef, spilling its content of about 37.000 tons of crude into the sea. It became the greatest oil spill in United States waters[23] until the BP oil spill of 2010 that spilt about 172 million tons, superseding all other spills.[24] The spill became great mostly because of the intensity of the media coverage and the pristine nature of the disaster area. The cause of the accident has been attributed to fatigue and human performance error.[25] The report indicates that there was inadequate manning on board the vessel tanker; with Exxon Shipping Company providing only 19 crew for a vessel that was carrying more than 53 million gallons of oil. Exxon's rebuttal to this charge is that the human insufficiency was complemented by a fully automated powered vessel. However, it was discovered that the Raytheon Collision Avoidance System (RAYCAS) radar that the vessel had heavily dependent on had been non-functional for more than a year.

Other failures that led to the disaster, according to an The National Transportation Safety Board (NTSB) report, attributed poor maneuvering by the third mate, poor navigation watch by the master, Exxon Shipping Company's failure to provide well rested and sufficient crew to Exxon Valdez, the U.S Coastguard's failure to provide effective oil vessel tanker system monitoring, as well as ineffective escort pilotage services.[26] The reasons advanced for the vessel grounding are both human and technological.

iv. Sea Empress-Milford Haven, UK, 1996.

This incident occurred in Milford Haven in the UK on February 15 1996. It became the third largest disaster in the UK, spilling 72.000 tons of crude into the sea. Its impact on marine life was massive as it resulted in the death of many marine animals and the loss of economic activities in the area. Causes of the disaster have been related to pilotage errors, inadequate or misleading information from the Milford Haven Port Authority (MHPA) Sailing Data Sheet, as well as a malfunctioning radar scanner at the port.[27] Marriot's inquiry goes further to indicate that the tidal waves inside the Milford Haven was not as simplistic as the MHPA Sailing Data Sheet had indicated, since it required appropriate training and experience in pilotage at the Milford Haven channel.

v. Prestige Disaster – Galicia, Spain, 2002.

[21]CEDRE 2002, "Amoco Cadiz" 2008 Available at: http://www.cedre.fr/en/spill/amoco/amoco.php January 2012.
[22] S.O.Aghalino and B.Eyinla, "Oil Exploitation and Marine Pollution: Evidence from the Niger Delta, Nigeria" 2009 Available at:http://www.krepublishers.com/02-Journals/JHE/JHE-28-0-000-09-Web/JHE-28-3-000-09-Abst-PDF/JHE-28-03-177-09-1964-Aghalino-S-O/JHE-28-03-177-09-1964-Aghalino-S-O-Tt.pdf December 2011.
[23] I.C. White, "The Sea Empress Oil Spill in Context, "Paper presented at the International Conference on the Sea Empress Oil Spill," February 1998, Available at: http://www.itopf.com/uploads/seeec.pdf. November 2011
[24] C. Perrow, *The Next Catastrophe*: *Reducing our Vulnerabilities to Natural, Industrial, and Terrorist Disasters.* Princeton University Press, pp. xvi. 2011
[25]Alaska Oil Spill Commission, "Exxon Valdez Oil Spill" 1990 https://archives.alaska.gov/education/evos.html May 2012
[26]C. Cleveland, "Deepwater Horizon oil spill" 2010 (http://www.eoearth.org/article/ January 2012
[27] P.B.Marriot, 1997 "Analysis of Incident (Initial Grounding of Sea Empress)" 1997 Available at: http://www.maib.gov.uk/cms_resources.cfm?file=/sea%20empress%20part%202.pdf November, 2011.

Vince indicated that the prestige oil spill that occurred off the Spanish coast of Galicia in 2002 was the worst oil disaster for Spain in terms of its environmental impact, and has been compared to the Exxon Valdez oil disaster of 1989 in the United States.[28] The oil spill polluted more than one thousand beaches in Spain and France. It costs the Spanish government more than $2.8 billion dollars to clean up the mess. This spill was thought to have spilled about 63.000 tonnes of heavy oil into the environment. On the split of the single-hull oil tanker, the Spanish, French and Portuguese governments refused to give clearance for the distressed tanker to dock in their ports and instead asked the captain to steer the vessel further into the sea. The Spanish government has consistently accused the ship captain for bringing a substandard vessel into their waters.

v. Fall out and Lessons Learnt

a) Qualified and well trained staff to undertake monitoring and inspection of oil vessels.

In some of the oil spill cases, human error has been at the epicenter of the disaster. In the case of Exxon Valdez where the captain was found to have been drunk at the stern, it would be better for coastguard to be more fully engaged in the safety of ship vessels by overseeing the monitoring of the vessel in the reef, instead of pulling away staff. At the time of the disaster, there were no coastguard staff present at the Watch to warn the vessel and steer it from coming close to the Bligh reef. In the same case, had there been a thorough, independent and well certified inspection of the ship tanker, the inspectors probably would have discovered that the radar on board the tanker had been out of service for more than a year.[29] Had this been checked by an independent body other than the oil company policing itself, the registration license for the ship tanker could have been withheld, and so compel them to carry out the necessary repairs demanded. The US now requires specially trained pilots; with experience of the Prince William Sound area to board oil tanker vessels, guiding them through 25 miles of the 70 miles long Sound.[30]

In another incident, (the Sea Empress disaster) which involved lack of pilot training, more piloting and certification programs could be used to minimize oil spill incidents rather than the courts setting examples of the oil companies after the fact- through punitive damages. During the investigation, it was found that the ship pilot had insufficient training in manning a vessel of 15.000dwt. He had not made sufficient inward trips with heavy tankers of the size of Sea Empress in order to be to be familiar with the Haven and the channel buoy. Thus, lack of enough pilotage training and a radar scanner that was erratic were attributed as the cause of the accident. Lack of a unified International or national standard on marine pilotage training at the time of the incident led to suggestions for the IMO to institute such a standard.[31] The vessel had a Shipboard Safety and Environmental Protection (SEP) Management System Certificate, and a Shipboard International Safety Management (ISM) Certificate that it obtained from Det Norske Veritas (DNV) on February 1 1996 prior to the accident. In essence, the vessel was declared sea-worthy as per the inspection report, but there were multiple failures at the level of the port in Milford Haven.

In reality, even though the Prestige had been inspected and found to be in good condition with up to three more years of sea-life, the vessel was substandard. The credibility of the inspection was therefore called into question. Of the 100.000 vessels that get inspected yearly within the European Union, only 700 get a thorough inspection.[32] The disaster may have acted as a turning point in marine activities in Europe, just as Exxon Valdez was

[28] Gaia Vince, 2003 "Prestige oil spill far worse than thought" 2003 available at: http://www.newscientist.com/article/dn4100-prestige-oil-spill-far-worse-than-thought.html January 2012
[29] C. Cleveland, "Exxon Valdez Oil Spill?" 2010 Available at: http://www.eoearth.org/article/Exxon_Valdez_oil_spill January 2012.
[30] *Ibid*
[31] P.B.Marriot, 1997 "Analysis of Incident (Initial Grounding of Sea Empress)" 1997 Available at: http://www.maib.gov.uk/cms_resources.cfm?file=/sea%20empress%20part%202.pdf November, 2011.
[32] Stephen Burgen 2010 "Prestige oil disaster trial can start at last" 2010 Available at:

for the United States, prompting better laws to be enacted to reduce oil disasters and prevent environmental pollution. In the United States, the disaster led to the creation of the Oil Pollution Act 1990[33] without a liability limit. Prestige disaster in Europe led to the introduction of legislation instituting the phasing out of all single-hull oil vessels from European waters by 2015.[34] Even though Europeans have not been able to match the American decision to leave compensation levels open, legislation in the aftermath of the disaster definitely set the path for such a compensation to go beyond the current 750 million Special Drawing Rights capped by the 1971 Civil Liability Compensation Convention Fund.[35]

b) Better technology for effective monitoring and control.

In the 1996 Sea Empress situation, the radar at the port was defective and so failed to monitor the entire area of the port including Saint Ann's Head where the incident occurred. Due to bureaucratic difficulties, a replacement radar had not been installed by the time of the accident, even though the one on site had been found to be defective since 1994. Furthermore, the absence of a tugboat to accompany an inward passage of a large tanker made matters worse since such a provision could have stopped the vessel from having a second grounding which resulted in a massive release of its content.[36] The Milford Haven Port Authority (MHPA) was fined a record £4 million by the prosecuting officer for failures at the port that resulted in the accident.[37] Escort towage have since been recommended by the MHPA to accompany the inward maneuvering of large ship tankers in the Milford Haven waters.[38] The U.S coastguard now monitors fully loaded oil vessel tankers via satellite technology as they pass Valdez narrows, going through Bligh Island and leave Prince William Sound. Moreover, each vessel tanker is accompanied by two escort vessels in the Sound, ready to assist in the event of an emergency; loss of power or loss of rudder control.

Furthermore, inspectors of oil vessel tanks should be better equipped to carry out thorough inspection of vessels rather than glide over the process. The blame of the Prestige disaster has been levelled against the ship's inspectors who did a woeful job, and allowed the substandard ship to sail.[39] There have been calls for the whole inspection regime to be revamped.

Another thing to be taken into consideration from the disaster is that of the quality of equipment used for inspection. Vessels registered in Barbados, Liberia and other supposed 'business-friendly' states should be on par with vessels that run European and American waters in terms of their inspection regimes. The Funiwa 5 incident brings to the limelight the question of the quality of technology used in the oil industry. The semisubmersible SEDCO 135C used for drilling caused the blow-out. Even though it was a standard drilling tool used by Texaco, the incident highlights the perennial problem of underlying risk in the oil industry.[40]

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http://www.guardian.co.uk/world/2010/jun/08/prestige-oil-disaster-investigation-spain. January 2012.

[33]Environmental Protection Agency (EPA),2007 "Oil Pollution Prevention Glossary" 2007 Available at: http://iaspub.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details. October 2011

[34] Font Carmen"Prestige Oil Spill Spain: Black Waters, Dirty Hands"2003 Available at: http://worldpress.org/Europe/882.cfm January 2012.

[35] IMO, "International Convention Relating to Intervention on the High Seas in cases of Oil Pollution Casualties" 1969. Available at:http://www.imo.org/about/convention/listofconventions/pages/international-convention-relating-to-intervention-on-the-high-seas-in-cases-of-oil-pollution-casualties.aspx November 2011.

[36] P.B.Marriot, "Analysis of Incident (Initial Grounding of Sea Empress)" 1997 Available at: http://www.maib.gov.uk/cms_resources.cfm?file=/sea%20empress%20part%202.pdf November, 2011.

[37] The Guardian, "Port Fined 4m for Oil Tanker Spill" 1999 https://www.theguardian.com/environment/1999/jan/16/oilspills.uknews March 2012

[38] P.B.Marriot, "Analysis of Incident (Initial Grounding of Sea Empress)" 1997 Available at: http://www.maib.gov.uk/cms_resources.cfm?file=/sea%20empress%20part%202.pdfAccessed November, 2011.

[39]Gaia Vince, **"**Prestige oil spill far worse than thought" 2003 available at:http://www.newscientist.com/article/dn4100-prestige-oil-spill-far-worse-than-thought.html January 2011

[40]S.O.Aghalino and B.Eyinla, "Oil Exploitation and Marine Pollution: Evidence from the Niger Delta, Nigeria" 2009 Available at:http://www.krepublishers.com/02-Journals/JHE/JHE-28-0-000-09-Web/JHE-28-3-000-09-Abst-PDF/JHE-28-03-177-09-1964-Aghalino-S-O/JHE-28-03-177-09-1964-Aghalino-S-O-Tt.pdf December 2011.

c) Better legislation and efficient enforcement mechanisms

Another important fact is that better legislation be utilized to enforce safety rather than let oil companies flout some of the principles of the legislation. Aspects such as liability, casualty and compensation treaties should be fully exploited to hold oil companies accountable for their actions. Even though valuable legislation have been drawn up to thwart the vast organization and well established oil machinery of the oil industry, better legislation could be passed to improve safety and compensation standards, and accommodate more areas of damage and compensation.[41] The 1969 International Convention on Civil Liability for Oil Pollution Damage makes provision for compensation to states and persons who have suffered from pollution damage relating to oil spills. The Fund's compensation is, however, limited to damage suffered in the territories including; the territorial seas of contracting states.[42] This therefore creates a platform for compensation to be drawn against the Fund, making it possible for member states to obtain compensation for their citizens. Nonetheless, there have been complains that the Fund is inadequate, in that, it has a cap on liability with Special Drawing Rights set at 750 million. Furthermore, it has been criticized for not broadening the scope of its definition of damage, thus limiting compensation claims for economic losses suffered from environmental issues related to oil disasters, which are considered to be spurious.[43]

Another fall out is the Prestige disaster was at the center of European legislation to phase out single-hull oil tankers in place of double hull vessels. Thus, it is appropriate to say that the disaster has been a turning point in Europe, in that, it propelled legislation to phase out single-hull vessel tankers by 2015 from European waters in place of double-hull vessels.[44] Also, in line with the outcome of the Exxon Valdez disaster is the fact that the U.S Congress enacted legislation requiring all tankers to be double-hulled by 2015. In the United States, the disaster led to the creation of the Oil Pollution Act, 1990[45] without a liability limit.

Another crucial issue that was brought up by the disaster is the question of registration of oil vessel tankers. The Prestige case was made complicated by the fact that the vessel flew a Bahamian flag, was insured in Britain, registered in the United States as part of a Swiss fleet, headquartered in London and the registered shipowner and captain were Greeks.[46] Bahamas, together with Liberia, Malta, China, Cyprus and Panama, form a network of supposed 'business-friendly or low-tax and low-standard ship registration alliance' taking half of all ship registration volume in the world.[47]

d) Oversight on overtime, alcohol intake and illegal drugs use.

Another fact that comes to question is the retirement age of sea captains and their crew. The ship captain of the ill-fated Prestige was 73 years old at the time of the disaster.[48] Even though age was not a factor in his prosecution and indictment, age becomes an issue in any form of strenuous commercial endeavour. What is the legal

[41]Michael Mason, "Civil Liability for Oil Pollution Damage: Examining the evolving Scope for Environmental Compensation in the International Regime" Marine Policy, Volume **27**(1)1-12 2003

[42]IMO, "International Convention Relating to Intervention on the High Seas in cases of Oil Pollution Casualties, 1969'. Available at:http://www.imo.org/about/convention/listofconventions/pages/international-convention-relating-to-intervention-on-the-high-seas-in-cases-of-oil-pollution-casualties.aspx November 2011.

[43]Michael.Mason, "Civil Liability for Oil Pollution Damage: Examining the evolving Scope for Environmental Compensation in the International Regime" Marine Policy, Volume **27**(1)1-12 2003

[44]Font Carmen, "Prestige Oil Spill Spain: Black Waters, Dirty Hands" Available at: http://worldpress.org/Europe/882.cfm 2003 January 2012.

[45] Environmental Protection Agency (EPA), "Oil Pollution Prevention Glossary" 2007 Available at: http://iaspub.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details. October 2011

[46]Stephen Burgen, "Prestige oil disaster trial can start at last" 2010 Available at: http://www.guardian.co.uk/world/2010/jun/08/prestige-oil-disaster-investigation-spain. January 2012.

[47]Friends of the Earth, "Prestige Oil pill- Who foots the bill?" 2002 Available at:http://www.foe.co.uk/resource/briefings/prestige_oil_spill_who_pays.pdf January 2012.

[48]Stephen. Burgen 2010 Prestige oil disaster trial can start at last" 2010 Available at: http://www.guardian.co.uk/world/2010/jun/08/prestige-oil-disaster-investigation-spain. January 2012.

retirement age for seamen and their crew? This is an important factor that, in addition to rigorous training of seamen and their crew, the monitoring of illegal drug use and alcohol consumption as well as standard working hours, overtime and the legal retirement age should be set at the international level for all commercial sea crew.

e) Desist from the reactionary to a proactive approach of mitigating oil spills

The Economist in a strong worded article revealed that the Portuguese and the French governments criticized the Spanish government for its rejection of the Prestige into Spanish inlet waters, forcing the ship Captain to restart his vessel and drive it further into the sea.[49] The deteriorating weather soon had a hold on the distressed single–hull vessel, splitting it into half and forcing its cargo of heavy oil to spill into the seas. The Spanish government on the other hand, has not accepted this position and believes that they did the right thing to have steered the ship clear off its territory. It has continued to blame the ship captain for cutting off the vessel engine and bringing the tanker into Spanish waters even though he had been expressly warned by Spanish authorities not to do so. Thus, the issue of accepting blame for oil spills is still an ongoing problem and what the right approach to distress vessels should be. Both parties involved in the oil industry would make better progress if they try to be more proactive to avert disasters than wait to clean up the after an accident.

i. CONCLUSION

It is evident that the sources of oil vessel tanker disasters are varied, amongst which are inadequate construction of vessels, legislation that sets a cap on compensation which makes it possible for some rogue shipowners and operators to avoid paying hefty fines that could put them out of business, no provision in current legislation either for seizure of oil vessel tankers or revocation of the operating license of rogue operators, insufficient monitoring and inspection of vessels and inspection stations, safe havens created by the ability of the six business-friendly nations that register substandard vessels to operate with impunity, insufficient trained monitoring staff, no set retirement age for oil tanker crews, drugs and alcohol still get passed the control mechanisms on board most vessels, use of obsolete technology in a sophisticated business environment, as well as the strong desire for most oil vessel tanker operators and their associates to cut costs against improving safety.

To better improve the situation, focussing on better human performance by improving on training mechanisms for all those along the oil transportation chain, frequently replacing obsolete technology and acquiring better ones, improved enforcement of already enacted legislation and a general reduction in the cost cutting strategies of oil companies should also be considered. Also, there should be concerted efforts geared towards reducing the number of oil vessel tankers registered and flying flags of convenience; with stringent controls imposed on these six countries. Thus, as we continue to blame the oil industry, other parties involved in the oil transportation paradigm should be capable of doing an excellent job in the first instance to help reduce the damage caused to our ecosystems by frequent oil spills.

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