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on shipbreaking



Star Cruises Ltd and Norwegian Cruise Lines: Deceiving Germany and Violating International Law in the Export of the SS Norway to India

Prepared by **NGO Platform on Shipbreaking**
June 30, 2006

Executive Summary:

The departure of the SS Norway (now SS Blue Lady, ex-France) from the port of Bremerhaven, Germany on May 23, 2005, triggered a continuing criminal offense that persists to this day, and dragged Germany into becoming a participant in violating international laws. Under the Basel Convention and its Basel Ban Amendment, and European Union law, Germany is prohibited from disposing of the SS Norway by exporting it to any country outside of the European Union and to country not members of the Organization for Economic Cooperation and Development, 30 of the most industrialized nations in the world, without decontaminating the vessel of all the toxic wastes onboard.

Bearing at least 1,200 tonnes of asbestos and an undetermined quantity of materials contaminated with the probable human carcinogen, polychlorinated biphenyls or PCBs, and other toxic wastes, the SS Norway poses a clear threat to human health and the environment in the Indian breaking yards where it is destined.

Newly discovered evidence confirm that as far back as 2004, the owners of the SS Norway, Norwegian Cruise Lines (NCL) and its mother company, Star Cruises Ltd (SCL), made a determination to dispose of the vessel without disclosing this information to German authorities when it sought Germany's permission to remove the SS Norway from the port of Bremerhaven. The owners misled Germany by declaring that the vessel was going to Asia for re-use.

Public records reveal that in 2004, NCL reduced the book value of the vessel by as much as US\$14.5 million, diminishing the SS Norway's value to a scrap value of US\$12.3 million. The records further indicate that NCL's management came to a conclusion that the sale of the vessel to interested third party buyers for reuse was not likely, signaling the company's resolve to dispose of the vessel by end of 2004.

Informed sources also reveal that in 2004, an interested European third party, Pierre & Vacances, looked into the purchase of the SS Norway from NCL and commissioned a feasibility study to determine the amount of asbestos in the vessel and cost for decontamination. The study estimated over EUR 17 million would be needed to decontaminate a portion of the asbestos in the SS Norway. By revealing the huge financial costs, the study also brought into perspective the looming legal liability that any interested buyer would have to shoulder in dealing with the toxic waste problem that NCL and SCL was facing with the SS Norway.

In late 2005, the intent to dispose of the vessel finally became evident when the SS Norway arrived in Malaysia where scrap buyers inspected the vessel at port. The SS Norway's odyssey did not end there, however. Attempts to dispose of the vessel in Bangladesh early 2006 failed, when the Bangladeshi government recognized the public health and environmental dangers posed by the SS Norway, now renamed SS Blue Lady, and prohibited it from entering Bangladeshi territory. Efforts to dispose of the vessel in India are now underway. The Indian Supreme Court is presently reviewing the case whether to allow the breaking of the vessel. A final decision is expected by July of 2006.

The dangers posed by the SS Norway continue to exist. Germany's consent to export the vessel was based on a false representation by the owners. In spite of this fact, Germany must fulfill its legal commitments and help uphold the laws that have been created to protect developing countries from the illegal traffic in toxic wastes. In this regard, we strongly recommend that the following actions be taken:

- 1. Germany must take the SS Norway back at once as its export is a clear violation of Article 16 of the European Union Waste Shipment Regulation, Article 6 of the Basel Convention, and the Basel Ban Amendment.**
- 2. Germany must conduct a full and impartial independent survey of all expected contaminants on board the ship as part of its construction, and then explore ways to decontaminate the vessel in Germany or in other OECD facilities prior to any onward export for steel recycling of the SS Norway.**
- 3. Hold Norwegian Cruise Lines and Star Cruises Ltd accountable by instituting criminal and civil actions against them for illegally exporting the SS Norway, misrepresentation to German authorities of their true intent of disposing of the vessel, and for any harm that will arise by their willful disposal of the toxic wastes they left on board the SS Norway.**

I. Introduction – the Saga of the SS Norway (SS Blue Lady, ex-France)

Standing 11 stories high and stretching 315 meters (1,035 feet) in length, the SS Norway is claimed to be the third largest in the world (after the SS Queen Elizabeth 2 and the ill-fated Titanic) and is the last of the very few classic ocean liners that symbolized luxury in the high seas. She was built in 1960 for the French government by the Chantiers de l'Atlantique in St. Nazaire, France. It was christened the SS France, and became the maritime showpiece of French culture and cuisine.

In 1979, the SS France was sold to Norwegian Cruise Lines (NCL), and was renamed SS Norway. The vessel underwent a major reconversion and several remodeling during its service with NCL as a luxury cruise ship. After a major and costly accident in 2003, which killed eight of her crewmen, the SS Norway was towed to Bremerhaven, Germany where she was docked for two years.

On May 23, 2005, the SS Norway was allowed to leave the port of Bremerhaven based on NCL's declaration that the vessel is headed for Singapore to be reused as a floating hotel.¹ Upon reaching Asia, the SS Norway did not become a floating hotel as declared, and eventually ended up in Port Klang, Malaysia on October 14, 2005. During its stay in Malaysia the vessel was re-christened the SS Blue Lady.

More than a month later, the SS Blue Lady bearing at least 1,200 tonnes of asbestos and an undetermined amount of other toxic contaminants in its structure was towed out of Port Klang, Malaysia. The new owner of the vessel claimed that it was headed towards Dubai, United Arab Emirates for repairs.² Human rights and environmental groups, however, viewed this as another ruse to hide the true destination of the vessel - Alang, India for disposal.

On February 16, 2006, the vessel attempted to berth in Bangladesh but the government prohibited the entry of the vessel. The government based its prohibition on outstanding international laws, among others, the Basel Convention, recognizing the dangers posed by the toxic wastes on board the vessel. (See *Annex I on the Bangladeshi Inter-Ministerial Declaration barring the SS Norway from entry*).

On May 12, 2006, the Indian government acting through the Gujarat Pollution Control Board also barred the entry of the vessel into Indian waters. On May 20, 2006, the new Indian owner of the vessel appeared before the Indian Technical Committee on Ship-Breaking pleading that the vessel be allowed to enter Indian waters. The case was later heard by the Indian Supreme Court and on June 5, 2006, the Indian Supreme Court went against its own 1997 order and subsequent order of October 2003 prohibiting import of hazardous wastes by permitting the SS Norway to enter Indian waters on humanitarian and safety grounds. The latest Supreme Court order did not touch on the legal basis of the entry of the vessel, and based its decision on the dangers posed by the oncoming monsoons in the region, and the lack of food supply of the vessel's crew. A final ruling is expected sometime in July of 2006.

Vessels contain toxic materials in their structure. At the end of the vessel's useful life, the disposal of the vessel together with its toxic materials across national boundaries is subject to international regulations as it raises serious environmental, human health, and human rights concerns. Illegal traffic in these wastes is a crime. States of export, countries where the movement of the waste

¹ Personal communication between Greenpeace International and German Basel Focal Point, June 2006.

² "SS Norway Quietly Sails Away", The Star, May 15, 2006.

was initiated, such as Germany in this case, have the legal responsibility under international law to take-back the hazardous waste that are illegally exported and ensure that it is managed in an environmentally sound manner. Moreover, the exporter or the generator of the waste, the ship owner, has a corresponding responsibility in ensuring that any export of toxic wastes complies with international regulations. In the case of the SS Norway, it appears that the owners withheld their true intention of disposing the vessel from German authorities when it sought to leave the port of Bremerhaven, thus, dragging Germany into the web of international illegal traffic of hazardous wastes.

We discuss below the facts establishing the misrepresentation of the ship owners of their intent to dispose of the vessel, and the ensuing international and national legal obligations of Germany to prevent the export of the SS Norway in 2005, and its present responsibility to recall the waste vessel:

- ✓ Disposing the SS Norway – a premeditated act;
- ✓ Hazardous wastes in end-of-life vessels;
- ✓ Rules and obligations established by the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal (Basel Convention) and its Basel Ban Amendment (Ban Amendment);
- ✓ Germany's obligations as a State of export, and its subsequent duty to address the unlawful traffic of hazardous wastes;
- ✓ Violation of the European Union legislation and policy; and
- ✓ Threatened violation of the Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention).

II. Disposing the SS Norway – a Premeditated Act

The owners of the SS Norway already formed their decision to dispose of the vessel well before May of 2005 when they sought permission from the authorities to remove the vessel from the port of Bremerhaven. They withheld this information from the German authorities, in an attempt not to raise further suspicion and possible German legal action on the disposal of the vessel.

As early as March of 2005, German lawmakers were already raising grave concerns on the environmental risks that the breaking of the SS Norway in India or Bangladesh may cause. The lawmakers demanded that a detailed study to assess the environmental risks posed by the SS Norway be undertaken before permission to scrap the vessel is given to the owners. These public pronouncements, with its accompanying legal and financial implications created the context for NCL and SCL to misrepresent their real intent to Germany.

Lastly, NCL has acted inappropriately in the past, when it purposely covered up an environmental crime it committed. Misrepresenting before German officials would not have been inconceivable for NCL to commit. We look at the following facts:

A. The SS Norway was too expensive to repair and re-use.

The boiler explosion that hit the SS Norway, as it was berthed in the port of Miami, on May 25, 2003 was fatal and expensive. The explosion killed 8 of the vessel's crewmen, injured 20 others, and precipitated a class-action lawsuit against NCL which was instituted by the family members of the killed and injured crewmen. The explosion also left the vessel without any form of propulsion.

NCL deliberated on the fate of the vessel for almost a year, when it finally announced that the SS Norway will no longer return to the North American cruise market. NCL decided not to re-engine the vessel because of the expense,³ and made this decision known to the public on March 17, 2004.

The decision not to re-engine the vessel effectively limited NCL's options with the SS Norway: a) indefinite storage, b) look for buyers who can repair the vessel or employ the vessel as a floating structure without propulsion, e.g. museum, hospital, casino, etc., or c) dispose of the vessel by selling it for scrap metal.

Indefinite storage is too costly for NCL. The company incurred as much as US\$284,000 paying dock fees to the Port of Miami while the vessel was docked for a month after the boiler explosion in May of 2003. Assuming that NCL decides to indefinitely store the vessel, based on the 2003 dock fees paid to the Port of Miami, an annual expense of at least \$3 million will be incurred. The high cost of dock fees alone makes this option unprofitable for NCL.

In NCL's 2005 Annual Report (Annual Report) filed with the United States Securities and Exchange Commission (See Annex III for excerpts) in March 28, 2006, NCL made it clear which option management was leaning to at the end of 2004:

"In October 2004, we received insurance proceeds of \$19.7 million that reduced the outstanding balance of the promissory note to \$26.8 million. Subsequently, management determined the probability of finding a qualified third party buyer [for the SS Norway] was not likely"⁴ (Emphasis supplied)

Having eliminated two of the three options before it, it is only logical that NCL pursue the last option it had, dispose of the SS Norway.

B. NCL and SCL drastically reduced the SS Norway's value to its scrap value.

A further examination of NCL's Annual Report reveals in some detail how the company reduced the book value of the SS Norway since its accident in 2003, paving the way for the SS Norway's sale to Indian breakers for disposal.

The Annual Report reveals that during April 2004, NCL transferred the SS Norway to its mother company, Star Cruises Ltd., in exchange for a non-interest bearing promissory

³ See, <http://www.maritimematters.com/norway.html>.

⁴ Norwegian Cruise Line 2005 Annual Report, Form 20-F, page 57, March 28, 2006. Available at: "<http://www.sec.gov/edgar.shtml>". [hereinafter NCL 2005 Annual Report]

note with a face value of US\$46.5 million.⁵ The face value of US\$46.5 million represents two anticipated amounts: US\$19.7 million proceeds from the insurance of the vessel arising from the May 2003 accident (boiler explosion) and US\$26.8 million, the perceived value of the vessel upon sale.⁶

Curiously enough, in the fourth quarter of 2004, NCL:

“...recorded an impairment charge in the amount of \$14.5 million to reduce the carrying value of the promissory note to the ship’s estimated salvage value, approximately \$12.3 million, at December 31, 2004.”⁷ (Emphasis supplied)

In a span of several months during 2004, the expected value of the SS Norway, in the event of any sale, was slashed from US\$26.8 million to US\$12.3 million. This move indicates that NCL predicted very little future cash flow arising from the SS Norway, and the costs it incurred will not be recoverable. By the end of 2004, NCL has practically scratched off the SS Norway as a loss.

The purpose of the “fire-sale” price of the SS Norway was made evident the following year, when the vessel finally arrived in Port Klang, Malaysia in Aug 2005. Scrap merchants were on hand, inspecting the SS Norway, obviously attracted by the prospect of cheaply purchasing a scrap vessel for metal reclamation.

C. NCL and SCL faced expensive decontamination costs and legal liability in Europe.

In 2004, Tecnicas, a consulting company headquartered in Paris, France, was approached by, Pierre & Vacances, a European company, to conduct a qualitative and quantitative study of the asbestos on board the SS Norway. Pierre & Vacances was interested in purchasing the vessel from NCL to convert it into a floating structure.

NCL gave Tecnicas full access to all of the SS Norway’s ship plans and documents to complete its study. Tecnicas produced a document entitled, 'Etude de Désamiantage du Navire SS Norway' (Study of the Asbestos Removal of the Ship SS Norway). Unfortunately, the document/report Tecnicas produced is a private document, and its findings and recommendations have not yet been made available to the public.

Informed sources, however, reveal that the study estimated that at least EUR 17 million would be needed to remediate just a portion of the asbestos in the SS Norway, covering only the partition walls, insulation, and briquetting.⁸ The Tecnicas study also indicated that asbestos in paint, a product called “Bitumatic”, was used in several areas of the SS Norway, e.g. water tanks, chain lockers, backside of port holes, etc.⁹ Unfortunately, the

⁵ NCL 2005 Annual Report, page 51.

⁶ NCL 2005 Annual Report, page 51.

⁷ *Id.* at F-13.

⁸ Personal Communication between Greenpeace International and Pierre & Vacances, June 2006.

⁹ *Id.*

Tecnitas study noted, that it was not possible to fully quantify the weight of asbestos in the SS, particularly in certain areas, e.g. flange gaskets, vapor valves, paint, etc.

Based on the data furnished by the Tecnitas study, it is obvious that the cost of a full decontamination of the SS Norway would easily dwarf the scrap value of the vessel in 2004, and would certainly pose as a major obstacle in the re-use of the SS Norway.

During this period, it is difficult to assume that NCL and SCL were not aware or made aware of the decontamination costs especially as it was dealing with Pierre & Vacances, when they gave Tecnitas access to ship plans and documents. The decontamination of the vessel also had a huge financial and legal implication for both the buyer and seller, particularly since the transaction was happening in Europe.

With high decontamination costs, and the specter of future legal liability, the cheapest option that NCL and SCL could take at the end of 2004 was to sell the SS Norway to scrappers in Asia or other developed countries, where environmental and health regulations are lax or are difficult to enforce. India and Bangladesh are prime candidates that meet the above criteria. Germany, however, was in their way.

D. NCL previously lied to the US government to cover up another environmental crime.

On July 31, 2002 the US Department of Justice issued a press release, entitled "Norwegian Cruise Line Admits to Environmental Crime".¹⁰ In the release, the US DOJ stated that:

*"NCL admitted that it engaged in a practice of systematically lying to the United States Coast Guard over a period of years regarding the discharge of oil-contaminated bilge waste from the SS Norway and at least one other ship."¹¹
(Emphasis supplied)*

The US DOJ also disclosed that NCL intentionally falsified the log books required to be carried by ships and regularly inspected by the Coast Guard so that NCL could conceal that oil contaminated bilge waste was being dumped overboard violating US and international laws. NCL signed a plea agreement acknowledging the felony violation, paid US\$1 million in criminal fines and cooperated with federal official to resolve the case.

The facts enumerated above, strongly indicate that NCL and SCL's intention to dispose of the vessel was fully formed by the end of 2004. It was to NCL and SCL's advantage to keep their intention secret and provide a different excuse to obtain German approval to allow the SS Norway to depart in May 25, 2005.

III. Hazardous Wastes in End-of-Life Vessels

¹⁰ For more information on NCL's 2002 criminal offense, visit:
http://www.usdoj.gov/opa/pr/2002/July/02_enrd_441.htm.

¹¹ *Id.*

Vessels contain toxic materials ranging from asbestos, cadmium, mercury, lead, chromium, antimony, and fuel and bunker oil. (See Annex 2 of this report for a list of toxic wastes in vessels). Vessels built before 1979, such as the SS Norway, are of greater concern because of the presence of polychlorinated biphenyls or PCBs in their structure. PCBs are man-made, persistent and highly toxic chemicals that were widely used in vessels for electrical cable insulation, ventilation gaskets, felt and rubber gaskets, paint, and other applications prior to 1979. PCBs are globally banned and are acknowledged as probable human carcinogens.

Table 1
Comparative Table of Vessels
with their Asbestos and
Materials Containing non-liquid PCBs

Name of Vessel	Vessel Type	Year Launched/ Commissioned	Lightweight (Tonnes)	Asbestos (Tonnes)	Non-Liquid PCBs (Tonnes)
Norway (Blue Lady, France)	Cruise Ship	1962	37,625	1,200	?
Clemenceau	Aircraft Carrier	1957	24,772	Over 500	783
Oriskany	Aircraft Carrier	1950	25,129	Over 500	795
Canisteo	Oiler	1945	14,705	61	34
Donner	Landing Ship Dock	1945	5,910	75	14
Protector	Radar Station Ship	1957	6,194	85	24
Compass Island	Auxiliary Ship	1953	15,057	252	47
Canopus	Submarine Tender	1965	12,618	252	286

Aside from the Tecnicas asbestos study, there appears to be no other study quantifying the toxins on board the SS Norway. The ship owners, NCL and its successors, have not developed a complete inventory of the toxic materials onboard the vessel as required by international law, and made it available to all states concerned before exporting the vessel.

In spite of the absence of a complete hazard inventory, the previous cases of the American “Ghost Fleet”¹² and the French aircraft carrier “Clemenceau”¹³ have provided us some data on the toxins and quantity carried by vessels of pre-1979 vintage. Table 1, above, compares the asbestos and PCB containing materials of several vessels of the “Ghost Fleet”, “Clemenceau”, and the SS Norway; quickly noticeable is how much the asbestos in the SS Norway outweighs the two military aircraft carriers. It is likely that there may also be more PCB contaminated materials and other toxins on board the SS Norway due to its size.

Industry expert, Mr. Aage Bjørn Andersen of MetaFil AS, a Norwegian company that focuses on developing maritime environmental technologies, raised the following concern in a memo (Anderson Memo) submitted to the Indian Supreme Court:

“If asbestos is removed by the current methods (in India), it is not unlikely that the amount of contaminated material will increase with a factor of 10. This is primarily due to inability

¹² See BAN’s Report on the US Ghost Fleet, entitled “Needless Risk: The Bush Administration’s Scheme to Export Toxic Wastes to Europe”, at: <http://www.ban.org/Library/Needless%20Risk%20Final.pdf>.

¹³ See BAN’s Report on the French aircraft carrier Clemenceau, entitled “The French Deception: PCBs and the Clemenceau”, at: http://www.ban.org/Library/the_french_deception.pdf.

to isolate the substance both in association to actual removal but also in relation to transportation and storage...¹⁴ (Emphasis supplied)

End-of-life vessels (EOL vessels) such as the SS Norway, present a grave threat to human health and the environment, particularly in the developing world where almost all global shipbreaking takes place. As a state of export, Germany needs to respond to this threat by fulfilling its legal duties under the Basel and Stockholm Conventions, Basel Ban Amendment, and the European Waste Shipment Regulation.

IV. Basel Convention

Germany became a Party to the Basel Convention on April 21, 1995. It accepted the Basel Ban Amendment on May 24, 2002.

A. End-of-Life vessels can be wastes under the Basel Convention.

Article 2.1 of the Basel Convention defines waste as “substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law....”¹⁵

“Disposal” is the operative term in the Basel waste definition that determines when an object passes the stage of being a “product” to becoming a “waste”. The Convention defines “disposal” in Annex IV by creating two categories, final disposal and recycling, and within these categories the Convention lists specific operations it considers to be “disposal”. One of these operations listed under Recycling is R4 -“recycling/reclamation of metals and metal compounds”, the very operation undertaken in shipbreaking operations.

We discussed previously that the owners’ intent to dispose of the vessel was formed in late 2004. Table 2 below lists various trade journal reports establishing NCL’s intent to dispose of the SS Norway in 2005.

Table 2
2005 Trade Reports Establishing NCL and SCL’s Intent to Dispose

<p>The shipping weekly 'TradeWinds' reports that:</p> <p><i>'Malaysian-owned [...] NCL will hand over the [...] SS Norway to cash buyers on Monday, report French Media). Sources in Bremerhaven tell TradeWinds that maintenance crew have begun stripping the vessel of furnishings and loose equipment and have been told to be expect to be gone within two weeks. Unless the Star Cruises subsidiary receives a check for EUR 20m (\$26.4m) before Monday, the historical ship is history, confirms NCL spokesman Niels North to the daily newspaper Ouest-France. French businessman Isaac Dahan had insisted as recently as this week that a project to buy the ship and anchor it at Honfleur was still alive.[...] A scrap sale has been on hold for many months pending projects to save the vessel as a boatel in France or Germany. [...]</i></p>	<p>TradeWinds of 25-Feb-2005</p>
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Table 2 (cont.)
2005 Trade Reports Establishing NCL and SCL’s Intent to Dispose

¹⁴ See Annex IV of this report. Memo submitted to the NGO Platform on Shipbreaking, Prepared by A Mr. Aage Bjørn Andersen, which was then submitted to Indian Technical Committee on Shipbreaking, dated June 26, 2006. [hereinafter Anderson Memo].

¹⁵ Basel Convention on the Transboundary Movement of Hazardous Wastes and their Disposal, available at www.ban.int.

<p>The shipping weekly 'TradeWinds' reports that:</p> <p><i>'[...]preparations for a demolition sale are well underway. [...]Lloyd-Werft is expecting an order to remove auxiliary engines and equipment before the [...]SS Norway[...] leaves for a breakers' beach.</i></p> <p><i>The French government offered yesterday to give the cruise ship a "partial classification as a historical monument" entailing tax breaks to offset the expenses of investors who would purchase and restore the [...] ship and bring it home to France. Secretary of state of transport and maritime affairs Francois Goulard said his counterparts in the ministry of culture had given the plan their nod. However, the move may be too little too late. A sale of the vessel to French interests ran out of steam last week reportedly over the cost of removing asbestos from the SS Norway. Investors would have made a boatel of the ship at Calvados off Le Havre.</i></p> <p><i>[...] eight Norwegian, US, UK and Indian cash buyers have inspected the SS Norway[...] and made their offers.'</i></p>	<p>TradeWinds of 01-Mar-2005</p>
<p>The Lloyd's Shipping Website SeaSearcher announces that the SS Norway has been sold to 'Indian Breakers'.</p>	<p>http://www.seasearcher.com SS - Vessel Overview – Ownership history</p>
<p>Indian Scrapper reportedly signed a purchase promise of \$15m</p>	<p>Http://mers.france3.fr/dossiers/6441436-fr.php</p>
<p>The French NGO 'Pour le Paquebot France' (for the Passenger ship France) declares during a press conference that the decontamination costs of the SS Norway (asbestos removal costs between EUR 8 and 22million).</p>	<p>Http://mers.france3.fr/dossiers/6441436-fr.php</p>
<p>Shipping Newspaper Lloyd's List reports that:</p> <p><i>'Norwegian Cruise Lines, which owns the vessel, reportedly took the decision to sell the ship for scrap after failing to find a buyer willing to pay more than \$20m – SS Norway's estimated scrap-metal value – fro the intact vessel.'</i></p>	<p>Lloyd's List of 10-Mar-2005</p>
<p>The Lloyd's Shipping Website SeaSearcher announces that the SS Norway has been sold to 'Indian Breakers'.</p>	<p>http://www.seasearcher.com SS - Vessel Overview – Ownership history</p>

In spite of the unequivocal waste definition of Basel, some shipping industry interests claim that a ship can not be a ship and a waste at the same time. This issue, however, has been decisively put to rest by the Basel Convention's Parties and legal experts in October 2004, at the Seventh Conference of the Parties, when in Decision VII/26 they stated as follows:

"Noting that a ship may become waste as defined in article 2 of the Basel Convention and that at the same time it may be defined as a ship under other international rules..."

Decision VII/26, thus functions to eliminate the seeming conflict of jurisdiction and recognizes the authority exercised by other international entities such as the International Maritime Organization (IMO) over vessels.

Further, recent reports raise the argument that the current owners of the SS Norway are deliberating on converting the vessel to a training ship or a floating hotel, thus, it can not be considered a "waste". This argument intends to exploit the subjective nature of the "intent to

dispose”, seeing that the owner’s intent can change thus, changing the nature of the “waste” back to a “material”. The case history of this vessel strongly indicates that it will soon end up for disposal:

- The vessel has reached the end of its useful life. Experts peg the useful life of a cruise ship to be approximately 40 years. The SS Norway reached this critical age in 2002.
- As discussed previously, NCL and SCL formed the intent to dispose of the vessel back in 2004 (*See Section II of this Report*).
- The vessel has already been sold for scrap once before, clearly establishing the owner’s intent to dispose of the vessel. Reputable maritime trade journals such as Fairplay, Lloyd’s List, and TradeWinds have reported that the vessel was sold for scrap in 2005. (*See Table 2 above*)
- Re-use was used as a pretext to ship the vessel out of Germany in 2005. When the SS Norway was towed from Bremerhaven, the German government relied on the false representation of NCL and SCL that the vessel was not going to be scrapped but rather repaired and re-used. The ship thus was allowed to be towed from Bremerhaven, Germany to Singapore and then Malaysia.
- The cost of decontaminating the vessel and preparing it for reuse is reportedly more than its resale value.

Note that consent to export obtained through fraud, misrepresentation, or falsification of information is still considered illegal traffic under the Basel Convention,¹⁶ and governments, in this case Germany, are ultimately liable for any resulting illegal traffic.

B. End-of-life vessels are hazardous wastes if they contain hazardous materials.

Basel defines hazardous wastes under Art. 1.1 as follows:

- (a) *Wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III; and*
- (b) *Wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit.*

As mentioned previously, EOL vessels contain hazardous materials. Most of these wastes are listed under Annex I of the Basel Convention, which provides that any material containing constituents such as, but not limited to, asbestos (Y36), PCBs (Y39), mercury (Y29), cadmium (Y26) is a hazardous waste “*unless they do not possess any of the hazardous characteristics listed in Annex III.*”

¹⁶ Art. 9.1.c, Basel Convention.

The SS Norway is known to contain asbestos. Further, based on the data available on US warships and vessels of pre-1979 vintage, it can be expected that the vessel also contains a significant quantity of PCBs in solid materials.

While there have been some reports that “interior stripping” occurred while at Port Klang, Malaysia there is still no proof that any hazardous materials were removed. The Anderson Memo also speaks of the absence of any previous toxic waste remediation in the past remodeling of the SS Norway:

“It may be noted that a screening of conversions undertaken as listed above does not reveal any targeted hazardous material removal. *The modifications undertaken are limited and of a nature suggesting that all main structural components including accommodation remain the original.*”¹⁷ (Emphasis supplied)

Moreover, the vast majority of PCBs on board the vessel is bound in solid matrixes such as in paints, gasket materials, electrical wiring insulation, etc. and the asbestos in the vessel will be located in between panels or walls such that “interior stripping” would be inadequate to access and remove all the hazardous components.

It is important to note that the Basel Convention has in only one instance established a threshold concentration level with respect to the hazardous characteristics. The Convention sets a level of 50 parts per million for PCBs below which they are presumed to be non-hazardous. Asbestos and all other Annex I listed materials however are presumed to be hazardous unless it can be demonstrated that they do not possess a hazardous characteristic.

In 1997 the Basel Convention adopted Annex VIII containing the “A” list of waste streams that are presumed to be hazardous (i.e. possessing a hazardous characteristic). On this list are included for example the following listings:

*A2050 Waste asbestos (dusts and fibres);
A3180 Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybrominated biphenyl (PBB), or any other polybrominated analogues of these compounds, at a concentration level of 50 mg/kg or more.*

(See Annex 2 of this Report for a listing of Basel covered hazardous wastes.)

Lastly, the Parties to the Basel Convention in their landmark Decision VII/26 also corroborated the hazardous waste character of obsolete ships further eliminating any uncertainty as to the application of the Basel Convention:

“Recognizing that many ships and other floating structures are known to contain hazardous materials and that such hazardous materials may become hazardous wastes as listed in the annexes to the Basel Convention, ...”

¹⁷ Anderson Memo, page 2.

C. Reuse of end-of-life vessels may entail disposal of hazardous components.

In 2005 when the SS Norway was docked in Germany, rumors were afloat that the vessel would be “re-used” as a hotel, casino, hospital ship, etc. Recently, similar rumors have once again surfaced while the vessel was in Malaysian waters. The “re-use” rumor has its uses, primarily, to confound government officials and the rest of civil society to believing that the vessel will not be disposed of. More importantly, the claim that the vessel will be re-used as a hotel, casino, etc. is an attempt to remove the vessel away from the jurisdiction of Basel, as the argument goes, since the vessel is not going for disposal but re-use.

It is not the terminology used to justify the export that determines the application of the Basel Convention but the actual operation that will occur in the importing country. Any waste trader can coin a new phrase other than “disposal” or “recycling” to evade Basel’s jurisdiction. For instance, a waste trade can claim that an EOL vessel is destined for “re-deployment”, “re-conversion”, “associated applications”, etc. and since these terms are not found in Basel, it can be claimed that the treaty does not apply. This similar tact is employed in the recent “re-use” rumors of the SS Norway.

As in the “re-use” of other hazardous wastes, such as electronic wastes or e-wastes, there are two operations that will actually occur with “re-use”. First, the actual structure of the vessel may be kept and indeed be re-used, and second, components in the vessel will be removed and disposed of (any Annex IV operation) in the importing country. The second aspect of “re-use” is the most crucial from Basel’s perspective and is often ignored, since the components that will be disposed of could very likely be hazardous under Basel. Since part of the “re-use” will result in an Annex IV operation, of a possible Annex I constituent in the importing country, the export proposal immediately falls within the jurisdiction of the Basel Convention. The exporter and State of export must therefore follow Basel’s requirements before initiating the export for “re-use”.

D. Illegal traffic in hazardous wastes is an international criminal offense.

Art. 4.3 of the Convention mandates that Parties consider the illegal traffic in hazardous wastes or other wastes as criminal. “Illegal traffic” is defined in Art. 9 of the Convention to include the following transboundary movement scenarios:

- “(a) without notification pursuant to the provisions of this Convention to all States concerned;*
- (b) without the consent pursuant to the provisions of this Convention of a State Concerned; or*
- (c) with consent obtained from States concerned through falsification, misrepresentation or fraud; or*
- (d) that does not conform in a material way with the documents; or*
- (e) that results in deliberate disposal (e.g. dumping) of hazardous wastes or other wastes in contravention of this Convention and of general principles of international law...”*

Germany committed an Article 9.1. a and b violations as it failed to issue the required notification and receive the consent from importing and transit states before allowing the SS Norway to depart. As mentioned previously, since the German government relied on the false pretense that the vessel will be exported out of Bremerhaven for subsequent re-use in 2005, the export is still considered illegal traffic under Art. 9.1.c and German government is not relieved of its other obligations under Basel. Even on the assumption that there is no misrepresentation, the export of the SS Norway can still be considered illegal traffic under Basel because at the end of the day this will result in a deliberate dumping of hazardous wastes that contravenes Basel and other general principles of international law, and would be covered as an Art. 9.1.e type of illegal traffic.

In light of the foregoing, Germany has clear responsibilities for a majority of the Art. 9 illegal traffic scenarios.

E. Germany's obligations under the Basel Convention must be upheld.

For the purpose of identifying Germany's obligations in the export of the SS Norway, we divided these into two main categories: State of Export Obligations and Overarching Basel Party obligations, and elaborate on these below:

State of Export Obligations

A State of export is defined under Basel as a "Party from which a transboundary movement of hazardous wastes or other waste is planned to be initiated or is initiated".¹⁸ Based on this legal definition, Germany is a "State of export" with regard to the SS Norway, since the vessel "initiated" its movement in that country and when it was apparent that the vessel was a waste and destined for disposal.

The following are the Basel obligations that Germany as a State of export should have observed:

- ✓ Order that the vessel is fully decontaminated/pre-cleaned of all toxic wastes before allowing it to be exported for disposal.

This obligation is based on Art. 4.2.d, which requires Parties to ensure that the transboundary movement of hazardous waste and other wastes is reduced to the minimum. Reduction takes the form of either prohibiting the export of the toxic wastes in the vessel or decontaminating or pre-cleaning the vessel of all its toxics before any export is allowed. This obligation is in line with the polluters-pay principle ensuring that waste generators deal with their wastes, instead of passing these on to others.

The pre-cleaning obligation is also expressed in Basel's Technical Guidelines on the Environmentally Sound Management for the Full and Partial Dismantling of Ships (Basel Guidelines).¹⁹ The Parties through the Basel Guidelines acknowledged the need for pre-cleaning vessels when they stated that:

¹⁸ Art. 2.10, Basel Convention.

¹⁹ Available at: <http://www.basel.int/ships/techguid.html>.

“These Guidelines do not currently address measures to minimise the hazardous materials aboard a ship prior to it being sent to a ship recycling facility. However, Basel Convention Parties believe that such waste minimisation guidelines are an important part of addressing the problems associated with ship recycling.”²⁰

Lastly, the decontamination/pre-cleaning obligation supports the Basel Ban Amendment, which is explained in the succeeding sections.

- ✓ Notify the competent authorities of all states concerned, e.g. transit states, state of import, about the export of the SS Norway, and include all of the necessary information including a full inventory of all hazardous materials on board the vessel which must include asbestos, PCBs, residual fuels, and heavy metal contaminated construction materials within the vessel. (Articles 6.1, 4.2.f, and Annex V a)

It was incumbent on Germany to inform Malaysia and Singapore in 2005, when the SS Norway docked or passed through these countries. Malaysia was dealt a great disservice by Germany when the latter failed in fulfilling this responsibility. This may be the basis of a future action by Malaysia against Germany.

- ✓ Ultimately, however, the export of the SS Norway should have been prohibited, if decontamination was not possible, on several grounds:

Germany had reason to believe that the wastes in question will not be managed in an environmentally sound manner (Art. 4.2.e).

Basel defines “environmentally sound management” (ESM) as “*taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes.*”²¹ (*Emphasis added*)

It is an internationally recognized fact that the shipbreaking yards in Alang, India and others in South Asia do not constitute environmentally sound management as required under the Convention. This is precisely why the Basel Convention produced the Technical Guidelines for the ESM of the full and partial dismantling of ships which specified steps by which existing yards found in India and in other developing countries are to undertake in order to fulfill the objective of environmentally sound management. Indeed throughout the negotiations of these technical guidelines delegates from India, Pakistan or Bangladesh never made the claim that the South Asian beaches are considered environmentally sound management as defined in the Convention. And the steps to date as delineated in that guideline have not been accomplished in full.

²⁰ Basel Guidelines, page 8.

²¹ Art. 2.8, Basel Convention.

Germany cannot transfer the obligation to deal with the wastes in an environmentally sound manner to the States of import or transit (Art. 4.10).

The Basel Convention insists that Parties take responsibility for the waste generated in their territory.

Germany failed to notify the States concerned, nor has the exporter, Norwegian Cruise Lines/Star Cruises Ltd, received the consent of the State of import or transit to receive the waste export. (Art. 6.3)

Prior-informed consent is the minimum requirement under Basel before any planned export is initiated. It creates the basic guarantee that no unwanted wastes will be sent to a country, without the benefit of timely notice so that importing and transit states can arrive at an informed consent. Regrettably, Germany and the vessel's owner failed to comply even with this minimum requirement.

The Basel Ban Amendment

The Basel Ban Amendment prohibits the export of hazardous waste from Annex VII countries, e.g. European Union, Organization for Economic Cooperation and Development member countries, and Liechtenstein, to any country not listed in Annex VII (non-OECD, non-EU country). The Basel Ban Amendment is the sole beacon of international environmental justice, which prohibits the exploitative transfer of pollution from developed nations to poorer nations because of the latter's economic status.

As a party to the Basel Ban Amendment, Germany could not have legally allowed the export of the SS Norway to a non-Annex VII country.

Overarching Basel Party Obligations

The following obligations apply to all Basel Parties irrespective of their role in the export of an EOL vessel:

- ✓ Take appropriate legal, administrative and other measures, including measures to prevent and punish conduct in contravention of the Convention (Art. 4.4).

- ✓ Take further action against hazardous wastes, provided that any additional requirements are consistent with the provisions of the Convention, and is in accordance with the rules of international law, in order better to protect human health and the environment (Art. 4.11).

Obligations under Articles 4.4 and .11 allows Parties to add on to the Convention requirements in national law, proactively implement the Convention and take other appropriate measures to enforce the Basel Convention obligations. Given this leeway, Parties have the opportunity to regulate all persons subject to their jurisdiction, particularly ship owners, charterers, brokers, and shipping agents and hold these entities accountable for the illegal exports of EOL vessels.

- ✓ Ensure that the generation of hazardous wastes and other wastes within its boundaries is reduced to a minimum (Art. 4.2.a).

This obligation is designed to drive green design for products and foster the development of cleaner technologies.

- ✓ Ensure the availability of adequate disposal facilities, for the environmentally sound management of hazardous wastes and other wastes, within the country of generation to the extent possible (Art. 4.2.b).

Self-sufficiency in hazardous waste management is crucial in ensuring that exports of hazardous wastes are reduced.

- ✓ Ensure that persons involved in the management of hazardous wastes or other wastes within it take such steps as are necessary to prevent pollution due to hazardous wastes and other wastes arising from such management and, if such pollution occurs, to minimize the consequences thereof for human health and the environment (Art. 4.2.c).

NCL and the succeeding owners of the SS Norway are the waste generators referred to by Basel in Art. 4.2.c, and Germany has the obligation to regulate the behavior these entities in the disposal of their wastes.

There are other outstanding obligations under Basel for cooperation, transmission of information and financial as well that is not covered in this report. See Basel Convention at: www.ban.int for more details.

Finally, Decision VII/26 reaffirms the application of the Basel obligations to ship disposal, when it issued a reminder to Basel Parties:

“...to fulfill their obligations under the Basel Convention, where applicable, in particular their obligations with respect to prior informed consent, minimization of transboundary movements of hazardous wastes and the principles of environmentally sound management...”

After reviewing the State of export and Overarching obligations, it appears that Germany failed to fulfil its obligations under Basel with respect to the export of the SS Norway, requiring Germany to take immediate remedial action.

V. Duty to Take Back

Article 9.1 of the Basel Convention states that if the illegal traffic was the result of the conduct of the State of export, it must ensure that the exporter or generator takes back the hazardous waste, and if necessary the State of export must perform this task. Article 9.1 further provides that if the re-importation is impracticable to accomplish, the hazardous waste must be disposed in accordance with Basel.

As the State of export, Germany must recall the SS Norway to its territory and ensure the environmentally sound disposal of the vessel. This legal remedy is by no means unusual in the case of EOL vessels. In fact, Parties have shown respect for this duty. In 2005, there was the case of the Riky involving Denmark and in 2006 the case of the Clemenceau involving France. Both cases exemplify the application of the take back obligation by the States of export.

In the case of the Riky, the ship owner misrepresented to the Danish authorities the true destination of the vessel, thus proper notifications were not issued by Denmark. When the Danish government became aware of the true destination of the vessel, it realized that an illegal export occurred, prompting the Danish environment minister to write her Indian counterpart requesting for the return of the Riky and declaring the export of the waste vessel to India an illegal traffic.²²

In the case of the Clemenceau, the French military exported the vessel laden with at least 500 tonnes of asbestos to India for breaking. The French courts ruled that the export of the Clemenceau violated French laws, and issued an order taking back the vessel from India. French President Jacques Chirac heeded the court's decision and re-called the Clemenceau back to France. The vessel arrived in Brest, France, May 17, 2006.

The responsibility for taking back the illegal wastes does not fall on the shoulders of the countries alone. Article 9.1 emphasizes that the Parties must ensure that the generator of the waste be held accountable. In the export of EOL vessels, the generator of the waste is the ship owner, which in this case is ultimately Star Cruises Ltd.²³ Germany can therefore go after Star Cruises Ltd. for the illegal export of the SS Norway.

In addition to Article 9, the Basel Convention under Art. 8 also recognizes that if there was a contract for the disposal of the waste and such contract cannot be completed, the State of export must ensure that the exporter re-imports the waste back into the State of export, if alternative arrangements for the disposal could not be made for the disposal of the waste in environmentally sound manner.

On the hypothetical scenario that the export of the SS Norway was done properly, Germany still has the obligation under Art. 8 of Basel to re-import the vessel back to its territory, because the contract to dispose of the vessel in an environmentally sound manner can not be accomplished in India as mentioned previously.

²² The case of the Riky did not result in the return of the Riky to Denmark, as the Indian government refused to return the vessel and ignore its own internal and international legal commitments. For more details, see: <http://www.ban.org/Library/BNNR1.pdf>.

²³ Star Cruises Ltd is the parent company of Norwegian Cruise Lines.

VI. European Union Legislation and Positions

EU Council Supports Decision VII/26 of Basel Convention

Before going into depth on the EU legislation, it is worthy to note that the European Union member states showed full support for the Basel Convention Decision VII/26 which asserted that a ship can be a waste and that Basel Parties must fulfill their obligations for ships as waste. They did this during the adoption of the decision at COP/VII. Subsequent to that they also passed a resolution during the Luxembourg Presidency on June 24, 2005 which stated at the outset the following:

The Council adopted the following conclusions:

"The Council,

- Underlining the need to ensure the safe and environmentally sound management of ships dismantling in order to protect human health and the environment,*

- Recalling Decision VII/26 of the Basel Convention which recognises the importance of the environmentally sound management of dismantling of ships and notes that a ship may become waste as defined in Article 2 of the Basel Convention and that at the same time it may be defined as a ship under other international rules,..."*

In the European Union, the Basel Convention has been implemented in the following legislation: The Waste Framework Directive (75/442/EEC) which defines waste generally; the Hazardous Waste Directive (91/689/EEC) which defines hazardous wastes management requirements; the Directive establishing the EU waste lists (2000/532/EC), and most importantly, in the Waste Shipment Regulation (EEC/259/93).

EU Hazardous Waste List

It is important to note that the waste lists found in (2000/532/EC) can be seen to encompass ships in the following listings:

- 16 02 10* discarded equipment containing or contaminated by PCBs other than those mentioned in 16 02 09*
- 16 02 12* discarded equipment containing free asbestos*
- 16 02 13* discarded equipment containing hazardous components (2) other than those mentioned in 16 02 09 to 16 02 12*
- 17 06 01* insulation materials containing asbestos*
- 17 06 03* other insulation materials consisting of or containing dangerous substances*
- 17 06 05* construction materials containing asbestos (7)*
- 17 09 02* construction and demolition wastes containing PCB (for example PCB-containing sealants, PCB-containing resin-based floorings, PCB-containing sealed glazing units, PCB containing capacitors)*

Listings with an asterisk (*) are considered as hazardous waste.

EU Hazardous Waste Export Ban

But the most important information with respect to the case of the SS Norway is that Article 16 of the Waste Shipment Regulation forbids hazardous waste from being exported from the European Union to countries that are not member states of the European Union or the Organization for Economic Cooperation and Development (OECD) for any reason.

Article 16 is based on Annex V which contains reference to a hierarchy of hazardous waste lists. If the material in question does not fall on the first list, then the subsequent lists need to be looked at. If the material appears on any of the lists then it is forbidden from export from the EU to a non-OECD country.

This Annex V first and foremost references the A list of the Basel Convention (Annex VIII). And indeed, Basel clearly has waste asbestos and wastes containing PCBs on this list as noted above. It is important to note that even if one were to try and use an argument that the asbestos, being contained in the construct of the ship, is not hazardous until recycled, the Basel Convention has foreseen and answered this potential question by creating hazardous characteristic H13:

"Capable by any means, after disposal, of yielding another material, e.g. leachate, which possesses any of the characteristics listed above."

Most hazardous waste experts would make no distinction of containment or dispersability with regard to asbestos however. They would not, for example, argue that asbestos, simply because it is placed in a steel barrel or drum and therefore is not accessible to lungs at least in the short term, is somehow no longer considered toxic. Such a reading would make the Basel Convention and the EU waste shipment regulation ridiculous as any waste trader could simply avoid the scope of regulation by simply placing all wastes into barrels. Indeed most wastes are shipped in some form of containment rendering them temporarily non-available to organisms which might be adversely impacted. Thus the idea of containment within the vessel of a ship is completely irrelevant to whether or not the material is a waste or a hazardous waste.

The Waste Shipment Regulation then goes on to utilize other lists starting with the EU hazardous waste list which can apply if the waste in question does not appear in the Basel listings (which it clearly does). It appears directly on the EU hazardous waste list as: 15 01 11, 16 02 12, 17 06 01, 17 06 05. While the EU hazardous waste list 94/904/EC can refer to percentages found in other directives, these are made moot by the fact that the Basel lists do not make reference to percentages. Indeed the Article 16 ban was created precisely to implement the Basel Ban Decision II/12 and thus cannot create a regime weaker than that ban which refers to Basel Hazardous Wastes by definition which contain no reference to percentages except in regard to PCBs.

Even if the waste were to fall through both the Basel and EU hazardous waste lists, however, the next list in the hierarchy refers to Annex III and IV of the waste shipment regulation, derived from the OECD Council Decision. This list includes asbestos in Annex IV and does so in a very explicit way regarding the term "containing" and furthermore reiterates the concern that the wastes be present in hazardous amounts as follows:

Chapeau: "Containing" or "contained with", when used in this list, means that the substance referred to is present to an extent which (a) renders the waste hazardous, or (b) renders it not suitable for submission to a recovery operation.

RB 010 Asbestos (dusts and fibres)"

Indeed the so-called "Green" list of the OECD makes the listing even more explicit as it contains the listing:

GC 030 ex 8908 00 Vessels and other floating structures for breaking up, properly emptied of any cargo and other materials arising from the operation of the vessel which may have been classified as a dangerous substance or waste.

The clear implication being that a vessel *not* properly emptied of materials classified as a dangerous substance or waste, would *not* be considered to be on the Green list but rather on the red or amber lists (Annexes III or IV). Indeed the chapeau over the Green list states clearly that a "green" listed waste contaminated by something other than a green listed waste will not be considered to be "green":

"Regardless of whether or not wastes are included on this list, they may not be moved as green wastes if they are contaminated by other materials to an extent which (a) increases the risks associated with the waste sufficiently to render it appropriate for inclusion in the amber or red lists, or (b) prevents the recovery of the waste in an environmentally sound manner."

Under the Waste Shipment Regulation which is binding on all EU member states, there can be no doubt that a ship for scrap containing hazardous Basel wastes, or OECD listed or EU listed hazardous wastes must be considered as a hazardous waste *banned* from export from a member state of the EU to any non-OECD, non-EU member state. Thus the export to Singapore and Malaysia from Germany of the SS Norway is illegal.

VII. Stockholm Convention

Germany became a Party to the Stockholm Convention on April 25, 2002.

As has been previously noted, older vessels, particularly those built before 1979, have a high-probability that they will contain very significant quantities of PCBs or polychlorinated biphenyls. Most of these PCBs are in solid matrix form and found in paints, gaskets, insulation materials, wiring, etc.

PCBs are listed in Annex A of the Stockholm Convention, and are targeted for global phase-out and strict trade and destruction criteria. The disposal of the PCBs in the SS Norway is thus, strictly controlled under Stockholm.

Article 3 of the Stockholm Convention severely restricts export and import of Persistent Organic Pollutants (POPs).

Each Party shall:

(a) Prohibit and/or take the legal and administrative measures necessary to eliminate:

x x x

(ii) Its import and export of the chemicals listed in Annex A in accordance with the provisions of paragraph 2; and

Paragraph 2 of Article 3 states:

x x x

(b) That a chemical listed in Annex A for which any production or use specific exemption is in effect or a chemical listed in Annex B for which any production or use specific exemption or acceptable purpose is in effect, taking into account any relevant provisions in existing international prior informed consent instruments, is exported only:

(i) For the purpose of environmentally sound disposal as set forth in paragraph 1 (d) of Article 6;

(ii) To a Party which is permitted to use that chemical under Annex A or Annex B; or

(iii) To a State not Party to this Convention which has provided an annual certification to the exporting Party. Such certification shall specify the intended use of the chemical and include a statement that, with respect to that chemical, the importing State is committed to.

As mentioned previously, the main reason for the export from Germany of the SS Norway was for disposal, thus, only (i) above can apply. Below we proceed to examine the applicable provisions of Article 6:

x x x

(d) Take appropriate measures so that such wastes, including products and articles upon becoming wastes, are:

(i) Handled, collected, transported and stored in an environmentally sound manner;

(ii) Disposed of in such a way that the persistent organic pollutant content is destroyed or irreversibly transformed so that they do not exhibit the characteristics of persistent organic pollutants or otherwise disposed of in an environmentally sound manner when destruction or irreversible transformation does not represent the environmentally preferable option or the persistent organic pollutant content is low, taking into account international rules, standards, and guidelines, including those that may be developed pursuant to paragraph 2, and relevant global and regional regimes governing the management of hazardous wastes;

(iii) Not permitted to be subjected to disposal operations that may lead to recovery, recycling, reclamation, direct reuse or alternative uses of persistent organic pollutants; and

(iv) Not transported across international boundaries without taking into account relevant international rules, standards and guidelines;

Although, the final destination of the vessel is still unknown, it is highly likely that it will end up in India or other South Asian breaking yards. In this case, it must be noted that the shipbreaking yards of Alang, India, the most likely destination of the SS Norway, nor any other breaking yard in South Asia, do not possess the technological means to dispose of PCBs in “*such a way that the persistent organic pollutant content is destroyed or irreversibly transformed so that they do not exhibit the characteristics of persistent organic pollutants*”.

It is clear from just the above summary analysis that if the SS Norway contains PCBs as we fully expect, Germany would be violating Stockholm’s requirements for:

- ✘ Exporting PCBs for purposes other than destruction.
- ✘ Allowing PCBs to be subjected to recovery, recycling, operations.
- ✘ Transporting PCBs without taking into account relevant international rules.

VIII. Conclusion and Recommendations

The case of the SS Norway is one of many that illustrate the global nature of the shipbreaking crisis. No one country can address the crisis single-handedly, nor can it be expected that a handful of developing nations take-in the collective cache of global end-of-life vessels. The volume of toxins in vessels slated for disposal, e.g. such as the 1,200 tonnes of asbestos in the SS Norway, is simply horrific from both an environmental and human health perspective. The status quo where ship owners such as Star Cruises Ltd and Norwegian Cruise Lines are able to illegally export toxic waste vessels with impunity, speaks not of the absence of law but of the glaring need to observe and enforce international laws.

The Basel Convention, the Basel Ban Amendment, and the Stockholm Convention require action from the Parties to fulfill the commitments they have promised to do. Only through the exercise of political will to uphold these international obligations can the global community expect positive change to occur.

We strongly recommend Germany to:

- 1. Take the SS Norway back at once as its export is a clear violation of Article 16 of the European Union Waste Shipment Regulation, Article 9 of the Basel Convention, and the Basel Ban Amendment.**

- 2. Germany must conduct a full and impartial independent survey of all expected contaminants on board the ship as part of its construction, and then explore ways to decontaminate the vessel in Germany or in other OECD facilities prior to any onward export for steel recycling.**
- 3. Hold Norwegian Cruise Lines and Star Cruises Ltd accountable by instituting criminal and civil actions against them for illegally exporting the SS Norway, misrepresentation to German authorities of their true intent of disposing of the vessel, and for any harm that will arise by their willful disposal of the toxic wastes they left on board the SS Norway**

- END -

Annex I

ENGLISH VERSION OF THE BANGLADESHI INTER-MINISTERIAL MEETING

Government of Peoples Republic of Bangladesh Ministry of Environment and Forest
Branch-7

No. pabama/sha-6/paper clipping-2/2005/51

Subject: Regarding Entry of Carrier of Hazardous Materials SS Norway

With reference to the above subject it is noted that being attracted by the news item titled "Floating SS Norway- the carrier of hazardous material is proceeding towards Bangladesh for scrapping", the environmentalists and others protested the entry of the ship into Bangladesh and in that backdrop an inter-ministerial meeting was held on 15-02-06 at the Ministry of Environment and Forest. The meeting took the following decisions. The Hon'ble Minister for Environment and Forest has approved the decisions:

(a) The Bangladesh Bank shall be requested to give necessary directions to the commercial banks not to open L/C to import the ship called SS Norway.

(b) The Navy, Chittagong Port Authority and the Coast Guard Authority shall be requested to take necessary steps not to allow the entry of the ship into Bangladesh.

(c) National Board of Revenue shall be requested to take necessary measures regarding non-entry of the ship into Bangladesh.

2. According to the Basel Convention, ILO Convention and the rules of WTO signatory countries have the right to refuse any material or carrier that can cause harm to the environment. Section 6 (a) of the Environment Conservation Act, 1995 has this provision.

3. In the circumstances stated, it is being requested under instruction to take necessary measures to ensure that the ship SS Norway (even if it has changed the name) does not enter Bangladesh.

Tahmina Akhter
Senior Assistant Secretary
Phone: 7162072

copy:

1. The Governor, Bangladesh Bank, Main Office, Dhaka 2. The Chief of Navy, Navy Head Office, Banani, Dhaka 3. The Secretary, Ministry of Home Affairs, Bangladesh Secretariat, Dhaka 4. The

Chairman, National Board of Revenue, Segenbagicha, Dhaka 5. The Chairman, Chittagong Port Authority, Chittagong 6. The Director, Coast Guard, Head Office, DOHS, Baridhara, Dhaka-1206

Copy to necessary information:

1. PS to the Hon'ble Minister, Ministry of Environment and Forest 2. PS to the Hon'ble State Minister, Ministry of Environment and Forest 3. PS to the Secretary, Ministry of Environment and Forest 4. The Joint Secretary (Development) Ministry of Environment and Forest 5. The Joint Secretary (Environment) Ministry of Environment and Forest.

Annex 2

(Taken from the Basel Technical Guidelines for Environmentally Sound Management of the Full and Partial Dismantling of Ships)

List of hazardous wastes and substances under the Basel Convention that are on board or inherent in the ships' structure when the vessel arrives at a dismantling site

The following list (Table 12) includes wastes and substances that may be inherent in the structure of the vessel when the vessel arrives at the dismantling site as well as an indication as to where on the vessel the wastes and substances may be found. The list is based on List A in the Basel Convention which contains wastes that are characterised as hazardous under Article 1, paragraph 1 (a), of the Convention. Their designation to Annex VIII in the Basel Convention does not preclude the use of Annex III to demonstrate that a waste is not hazardous. Wastes specifically listed on List B in the Convention are excluded.

Some of the entries in List A in the Basel Convention overlap so that some wastes are present in several ship components and vice versa. All entries in List A that may possibly be present in the ship structure are therefore not included. Electrical appliances, batteries, etc. are included on the list of wastes and substances that may be inherent in the structure of the vessel.

Table 11 Wastes and substances that may be inherent in the vessel structure

Wastes	Waste-location on the ship
<i>A1 Metal and metal-bearing wastes</i>	
A1010 Metal wastes and waste consisting of alloys of any of the following:	
Antimony *	alloys with lead in lead-acid storage batteries, solder
Beryllium *	hardening agent in alloys, fuel containers, navigational systems
Cadmium *	bearings
Lead	connectors, couplings, bearings
Mercury	thermometers, bearing pressure sensors
Tellurium *	in alloys
A1020 Waste having as constituents or contaminants, excluding metal waste in massive form, any of the following:	
Antimony; antimony compounds *	fire retardation in plastics, textiles, rubber, etc.
Cadmium; cadmium compounds	batteries, anodes, bolts and nuts
Lead; lead compounds	batteries, paint coatings, cable insulation
A1030 Wastes having as constituents or contaminants any of the following:	
Arsenic; arsenic compound	Paints on the ships' structure
Mercury; mercury compounds	thermometers, light fittings, level switches
A1040 Wastes having as constituents any of the following:	
Hexavalent chromium compounds	paints (lead chromate) on the ships' structure

A1080 Waste zinc residues not included on list B, containing lead and cadmium in concentrations sufficient to exhibit Annex III characteristics	anodes (Cu, Cd, Pb, Zn)
A1160 Waste lead-acid batteries, whole or crushed	batteries: emergency, radio, fire alarm, start up, lifeboats
A1180 ** Waste electrical and electronic assemblies or scrap containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or contaminated with Annex I constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they possess any of the characteristics contained in Annex III (note the related entry on list B B1110)	level switches, light tubes and fittings (capacitors), electrical cables
<i>A2 Wastes containing principally inorganic constituents, which may contain metals and organic materials</i>	
A2010 Glass waste from cathode-ray tubes and other activated glasses	tv and computer screens
A2050 Waste asbestos (dusts and fibres)	thermal insulation, surfacing material, sound insulation
<i>A3 Wastes containing principally organic constituents, which may contain metals and inorganic materials</i>	
A3020 Waste mineral oils unfit for their originally intended use	hydraulic fluids, oil sump (engine, lub. oil, gear, separator, etc.), oil tank residuals (cargo residues)
A3140 Waste non-halogenated organic solvents but excluding such wastes specified on list B	antifreeze fluids
A3180 Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybrominated biphenyl (PBB), or any other polybrominated analogues of these compounds, at a concentration level of 50 mg/kg or more	capacitors in light fittings, PCB in oil residuals, gaskets, couplings, wiring (plastics inherent in the ships' structure)
<i>A4 Wastes which may contain either inorganic or organic constituents</i>	
A4030 Wastes from the production, formulation and use of biocides and phytopharmaceuticals, including waste pesticides and herbicides which are off-specification, outdated, or unfit for their originally intended use	paints and rust stabilizers, tin-based anti-fouling coatings on ships' bottoms
A4060 Waste oils/water, hydrocarbons/water mixtures, emulsions	sludge, chemicals in water, tank residuals, bilge water
A4070 Wastes from the production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish excluding any such waste specified on list B (note the related entry on list B B4010)	paints and coatings on the ships' structure
A4080 Wastes of an explosive nature (but excluding such wastes specified on list B)	compressed gases (acetylene, propane, butane), cargo residues (cargo tanks)
A4130 Waste packages and containers containing Annex I substances in concentrations sufficient to exhibit Annex III hazard characteristics	cargo residues

Footnotes:

* If the component is present it is most likely bound in an alloy or present at a very low concentration

** The ship components are also covered by other List A entries (overlapping)

Table 13 includes wastes and substances that may be on board the vessel when the vessel arrives at the dismantling site as well as an indication as to where on the vessel the wastes and substances may be found.

Table 12 Wastes and substances that may be on board the vessel

Wastes	Product where waste may be found
A1170 Unsorted waste batteries excluding mixtures of only list B batteries. Waste batteries not specified on list B containing Annex I constituents to an extent to render them hazardous.	portable radios, torches
A3140 Waste non-halogenated organic solvents but excluding such wastes specified on list B	solvents and thinners
A3150 Waste halogenated organic solvents	solvents and thinners
A4010 Wastes from the production, preparation and use of pharmaceutical products but excluding such wastes specified on list B	miscellaneous medicines
A4030 Wastes from the production, formulation and use of biocides and phytopharmaceuticals, including waste pesticides and herbicides which are off-specification, outdated, or unfit for their originally intended use	insecticide sprays
A4070 Wastes from the production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish excluding any such waste specified on list B (note the related entry on list B B4010)	paints and coatings
A4140 Waste consisting of or containing off specification or outdated chemicals corresponding to Annex I categories and exhibiting Annex III hazard characteristics	consumables

Certain waste components that are relevant to ship dismantling are not included in List A in the Basel Convention, but may be covered by other regulations. These waste components are listed in Table 14, together with an indication as to where on the vessel such wastes may be present.

Table 13 Waste components that are relevant to ship dismantling and which are not included in List A in the Basel Convention

Potentially hazardous materials not covered by List A in the Basel Convention:	Ship component
CFC (R12 - dichlorodifluoromethane, or R22 - chlorodifluoromethane)	refrigerants, styrofoam
Halons	fire fighting equipment
Radioactive material	Liquid-level indicators, smoke detectors, emergency signs
Microorganisms/ sediments	ballast water systems (incl tanks)
Fuel oil, diesel oil, gas oil	

Annex 3

EXCERPTS FROM NCL's FORM 20-F
As filed with the Securities and Exchange Commission on March 28, 2006

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 20-F

ANNUAL REPORT
PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2005

Commission file number 333-128780

NCL Corporation Ltd.

(Exact name of registrant as specified in its charter)

Bermuda

(Jurisdiction of incorporation or organization)

7665 Corporate Center Drive
Miami, Florida 33126
(305) 436-4000
(Address of principal executive offices)

Securities registered or to be registered pursuant to Section 12(b) of the Act.
None

Securities registered or to be registered pursuant to Section 12(g) of the Act.
None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

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Net Cruise Costs per Capacity Day increased by 10.4% for the year ended December 31, 2004 compared to the year ended December 31, 2003. This increase was primarily due to marketing, shoreside and U.S. crew costs associated with the start up of NCL America and the reduction in other operating expenses in 2003 resulting from the insurance settlement as discussed above.

Depreciation and amortization decreased by \$19.9 million, or 18.5%, from \$107.3 million for the year ended December 31, 2003 to \$87.4 million for the year ended December 31, 2004. The decrease in depreciation expense was primarily due to reduced depreciation for the six ships transferred to Star Cruises Limited in April 2004 and the *Norway* which left the fleet in May 2003.

In the fourth quarter of 2004, we recorded an impairment charge in the amount of \$14.5 million to reduce the carrying value of the promissory note from Star Cruises Limited to \$12.3 million, the *Norway's* estimated salvage value, and the amount we expect to collect from Star Cruises Limited, compared to an impairment loss of \$3.2 million for the year ended December 31, 2003. In 2003, we recorded an impairment loss of \$15.0 million related to the Orient Lines trade name which represents the amount by which the book value of the trade name exceeded the estimated fair value based on estimated then current market royalty rates and anticipated revenues associated with the Orient Lines trade name.

Interest income increased by \$0.6 million from \$0.8 million for the year ended December 31, 2003 to \$1.4 million for the year ended December 31, 2004. The increase was due to higher cash balances maintained during the year ended December 31, 2004 as compared to the year ended December 31, 2003.

Interest expense, net of capitalized interest, decreased by \$2.0 million, or 3.9%, from \$50.8 million for the year ended December 31, 2003 to \$48.9 million for the year ended December 31, 2004, primarily as a result of a decrease in average outstanding borrowings, offset in part by higher interest rates.

Other expense increased by \$7.2 million from \$4.4 million for the year ended December 31, 2003 to \$11.5 million for the year ended December 31, 2004. The increase was primarily due to a \$9.5 million foreign exchange translation loss on debt during the year ended December 31, 2004, partially offset by a \$1.2 million gain on a foreign currency contract.

Liquidity and capital resources

Net cash provided by operating activities was \$134.7 million for the year ended December 31, 2005 compared to \$146.3 million for the year ended December 31, 2004. The decrease was primarily due to net income adjusted for non-cash items in 2004 was higher than in 2005 and timing differences in cash payments relating to operating assets and liabilities. Net cash provided by operating activities was \$146.3 million for the year ended December 31, 2004 compared with \$85.5 million for the year ended December 31, 2003. The increase was primarily related to an increase in advance ticket sales as well as timing differences in cash payments relating to operating assets and liabilities.

Capital expenditures were \$0.7 billion for the year ended December 31, 2005, \$0.7 billion for the year ended December 31, 2004 and \$0.3 billion for the year ended December 31, 2003 and were primarily related to the deliveries of the *Pride of America* and the *Norwegian Jewel* in 2005; the purchase of the *Norwegian Spirit* in 2004; and the purchase of the *United States* and the *Independence* in 2003, as well as progress payments for ships under construction in all years.

Cash from financing activities was \$429.5 million for the year ended December 31, 2005, principally due to draw downs on committed loan facilities to fund progress payments on ships under construction and to fund the deliveries of the *Pride of America* and the *Norwegian Jewel*. Cash from financing activities was \$570.2 million for the year ended December 31, 2004. In July 2004, we issued \$250.0 million of senior unsecured notes due 2014. In addition, we entered into a \$300.0 million term facility and drew \$180.0 million on our \$500.0 million revolving credit facility (collectively the "Senior Secured Credit Facility"). These funds were used to purchase the *Norwegian Spirit*, to repay \$408.2 million outstanding on the *Norwegian Sky* and *Norwegian Star* term loans, and for general corporate purposes. Cash from financing activities was \$271.8 million for the year ended December 31, 2003, principally due

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Contributions from Star Cruises Limited

We have been substantially funded since the inception of Arrasas Limited by inter-company advances from our parent, Star Cruises Limited. In April and September 2001, \$47.2 million (inclusive of \$1.5 million of interest) and \$150.0 million, respectively, were repaid to Star Cruises Limited through the issuance of Arrasas Limited common stock to Star Cruises Limited.

The remaining advances from Star Cruises Limited at December 31, 2001, 2002, 2003, 2004 and 2005 of \$1.2 billion, \$1.3 billion, \$0.7 billion, \$1.3 million and \$3.1 million, respectively, were non-interest bearing and unsecured. At December 31, 2001, 2004 and 2005, such amounts had no fixed repayment terms and, as a result, were classified as a current liability in our consolidated financial statements at December 31, 2001, 2004 and 2005. Star Cruises Limited agreed not to demand repayment during 2003 of the balance outstanding at December 31, 2002 and, as a result, such amount was classified as a long-term liability in our consolidated financial statements at December 31, 2002. At December 31, 2003, the \$366.6 million that was capitalized as equity in connection with the Reorganization was classified as a long-term liability at December 31, 2003. The remaining balance of \$374.8 million was classified as a current liability as such amount was satisfied in connection with the Reorganization transaction.

In addition, funds in the aggregate amount of \$800.0 million that had been advanced to us by Star Cruises Limited at various times between February 2000 and September 2003 were converted to additional paid-in capital in September 2003. Star Cruises Limited contributed an additional \$128.2 million in cash to us in December 2003 in the form of equity.

Other vessel purchases and sales

The *Norwegian Sky* has been reflagged and renamed the *Pride of Aloha*, and began offering inter-island cruises in Hawaii in July 2004. In order to continue offering the cruises that previously were provided by the *Norwegian Sky*, particularly its Alaska cruise itineraries, we entered into a bareboat charter agreement, in May 2004, with Star Cruises Limited to charter-in the cruise ship the *Norwegian Spirit*, built in 1998. We purchased the *Norwegian Spirit* in July 2004 with funds from the Senior Secured Credit Facility for \$307.6 million, which represents the net book value of the ship at the date of the transaction including reimbursement for certain dry-docking costs and other spare parts.

During 2004, we transferred the *Norway*, and a related \$19.7 million insurance receivable to Star Cruises Limited in exchange for a non-interest bearing promissory note in the amount of \$46.5 million. The promissory note or a portion of the outstanding balance thereof was payable to us by Star Cruises Limited at the time of disposal of the ship and the recovery of certain amounts from the insurance syndicate who insured the ship in May 2003 at the time there was an incident onboard. The face value of the promissory note represented our carrying value of the *Norway* on April 23, 2004, which estimated the anticipated proceeds from the sale of the ship, and the estimated amount to be recovered from the insurance syndicate.

The amounts payable by us annually to Star Cruises Limited for the chartering of the *Norwegian Crown*, the *Norwegian Dream*, the *Norwegian Majesty*, the *Marco Polo* and the *Norwegian Wind* are set forth under “Item 5—Operating and Financial Review and Prospects—Contractual obligations” above, within the line item “Ship Charter Obligations”.

We refer you to Note 5 to our consolidated financial statements on page F-12, for a further discussion of our related party transactions.

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Notes to the Consolidated Financial Statements

In October 2004, we received insurance proceeds of \$19.7 million that reduced the outstanding balance of the promissory note to \$26.8 million. Subsequently, management determined the probability of finding a qualified third party buyer was not likely and accordingly, in the fourth quarter of 2004, we recorded an impairment charge in the amount of \$14.5 million to reduce the carrying value of the promissory note to the ship's estimated salvage value, approximately \$12.3 million, at December 31, 2004. The promissory note is classified as a current asset in the accompanying consolidated balance sheets. Star Cruises settled the promissory note in January 2006.

In July 2004, we purchased the *Norwegian Spirit* from Star Cruises for \$307.6 million. Approximately \$4.7 million of the amount originally transferred was accounted for as a reduction of additional paid-in capital for the year ended December 31, 2004. Such amount represented the excess of amount paid by us to Star Cruises in connection with the purchase of the *Norwegian Spirit* over the net book value of the ship on the books of Star Cruises at the time of the transaction.

In addition, Star Cruises agreed to pay certain amounts with respect to matters that arose in connection with Star Cruises' acquisition of us (see Note 9(d)).

Amounts due to Star Cruises at December 31, 2004 and 2005 of \$1.3 million and \$3.1 million, respectively, are non-interest bearing and represent short-term intercompany transactions and consist of the following (in thousands):

Balance at December 31, 2003	\$ 741,402
Cash advanced for capital expenditures	104
Cash advanced for professional and other fees	1,169
Net book value of six ships transferred, net of associated debt	(374,846)
Amount transferred to equity	<u>(366,556)</u>
Balance at December 31, 2004	1,273
Cash advanced for capital expenditures	7,619
Reimbursement of professional and other fees	1,482
Reimbursement of ship expenses	<u>(7,233)</u>
Balance at December 31, 2005	\$ 3,141

The average balance for amount due to Star Cruises was \$174.9 million and \$2.3 million for the years ended December 31, 2004 and 2005, respectively.

At December 31, 2005, the Lim Family directly and indirectly controls approximately 86% of Star Cruises, which in turn owns 100% of our equity. As a result of the ownership, the Lim Family has the ability to determine our corporate policies, appoint our directors and officers and control those corporate actions that require shareholder approval.

6. Financial Instruments

Reported fair values are based on a variety of factors and assumptions. Accordingly, the fair values may not represent actual values of the financial instruments that could have been realized as of the balance sheet date or that will be realized in the future and do not include expenses that could be incurred in an actual sale or settlement. Our financial instruments are not held for trading or speculative purposes.

Our exposure under foreign currency contracts, interest rate and fuel swap agreements is limited to the cost of replacing the contracts in the event of non-performance by the counterparties to the contracts. To minimize this risk, we select counterparties with credit risks acceptable to us. Furthermore, foreign currency forward contracts are denominated in primary currencies.

Annex 4

NGO Platform on Shipbreaking

*Ban Asbestos Network India, Basel Action Network, Greenpeace, Bellona Europa,
European Federation for Transport and Environment,
North Sea Foundation, International Federation for Human Rights,
Ban Asbestos, International Ban Asbestos Secretariat,
L'Association pour le Paquebot France,
Bangladesh Environmental Lawyers Association and Young Power in Social Action.*



NGO platform
on shipbreaking



MEMO SS BLUE LADY CASE

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RAPPORT NR. 2006-1019

REVISJON NR. 01

POTENTIAL HAZARDOUS MATERIALS AND REMOVAL OPTIONS

Date of first issue: 26.06.2006	Reference: 1019/ aaba
Approved:	Division: Research and Development
Client: NGO Plattform on Shipbreaking	Clients reference: David Sabtillo (University of Exeter)

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Summary

Aage Bjørn Andersen has been approached by the NGO Plattform on Shipbreaking to provide considerations of the implications related to the process concerning the decommissioning for disposal, dismantling and recycling of the SS Blue Lady – IMO no.: 5119143 (ex. SS Norway, ex. SS France).

The SS Blue Lady operated as a cruise liner under the name SS Norway under the ownership of NCL Corporation Ltd. until May 2003 when it was damaged following an explosion of one of its four boilers. Following this accident, the vessel was towed from US waters, where the accident occurred, to Germany. It remained in Germany until it was towed to Malaysia in May 2005.

The vessels declared value was adjusted by her owners a number of times during the stay in Germany. The last adjustment was reported prior to her departure to Malaysia to be salvage value (scrap value) at \$ 12.3 million.

SS blue Lady was built in the late 1950's and consequently reflects the standards in shipbuilding at this time. The vessel structure contains a number of various hazardous materials that require special techniques in order to be safely removed. These materials include, but are not restricted to, asbestos, PCBs and heavy metals.

Safe removal techniques require special facilities, procedures and trained personnel, which currently is not available in Chittagong, Bangladesh, nor in Alang, India. Bangladesh recently rejected the vessel recognising this.

Report no.: 2006-1019	Reference group:	
Report title: The SS Blue Lady Memo on onboard hazardous materials t		
Work team: Aage Bjørn Andersen		
Verified by: Stein Foss		
Date for this revision: 26.06.2006	Rev. no.: 01	No of pages:

Subject terms

Potential hazardous materials
SS Blue Lady
Asbestos
PCB

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Introduction and history

The ship was been built at Chantiers de l'Atlantique in St-Nazaire (France) and was at the time the world's largest passenger vessel.

SS Blue Lady was equipped with a steam turbine propulsion configuration including steam supply by a number of 4 main boilers. The machinery arrangement comprises dual engine rooms and boiler rooms.

The building of the vessel to initially be known as the SS France commenced late 1957 (7th October) and the vessel was launched in 1960 (11th May). SS France operated as a cruise ship world wide until it was laid up in 1974. The vessel was originally built to SOLAS 1948 requirements.

Following a long period laid up, the vessel was later sold to a Norwegian ship owner and renamed SS Norway. Prior to entering service, the vessel underwent refurbishing and modifications at the Hapag-Lloyds shipyards at Bremerhaven (Federal Republic of Germany) (1979/1980). This work included;

- Installation of bow thrusters (3).
 - Installation of stern thrusters (2).
 - Replacement of alternators.
 - Engine control room installed; turbine machinery as well as boilers was atomized.
 - Bridge replacement inclusive of remote operations of most systems including propulsion system.
 - Upgrading of engine room fire protection system (Halon system).
 - New fire detection system compliant with the SOLAS 1974 Chap.II-2 regulation, with its amendments.
 - The Promenade deck (9-Pool deck) and Promenade Superieur deck (10-International deck) was extended.
 - Additional cabins where installed at the stern of the Sundeck deck (12-Fjord deck) and on the starboard and port inboards of the Promenade deck (9-pool deck).
 - Two new swimming pools were installed at the Promenade (9-Pool deck) and Sundeck (12-Fjord deck) decks.
 - A Lido bar has was installed at the Promenade deck (9-Pool deck).
 - The first class "Main Lounge" was transformed into "Checkers" cabaret.
 - The second class "Main Lounge" was transformed into "North Cape" lounge.
 - The second class beauty salon was transformed into "Windjammer" lounge.
 - The other common premises of the Promenade superior deck (10-International deck) were transformed into shops.
-

Since this main conversion, the vessel has undergone a number of minor modifications/conversions as follows:

- 1982; Three diesel generators were installed.
- 1984; An additional two diesel generators were installed.
- 1987; Crew mess was been transformed into a galley and additional cabins. The conference room (embarkation deck (11-Olympic deck) was transformed into a gallery.
- 1996; Stairways, alleyways, boatdeck, pantries and galleys was replaced/renewed.
Fire protection upgraded (to comply with SOLAS 1992) including low voltage lightening, fire doors, securing of ventilation shafts and sprinkler systems.
- 1999; Upgraded bilge water separators (2) installed.
- 2001; A third bilge water separator and also a “High-Fog” system (fire protection – engine room) was installed.

In May 2003, the ship suffered a boiler explosion. Following the accident which occurred while the vessel was quayside in Florida (US), the ship was towed to Germany where it was assumed it would undergo repairs. However, the owner announced the decision not to repair the vessel due to anticipated expense (NCL, March 2004).

It may be noted that a screening of conversions undertaken as listed above does not reveal any targeted hazardous material removal. The modifications undertaken are limited and of a nature suggesting that all main structural components including accommodation remain the original.

Hazardous materials onboard

The vessel is built in a period where building practice included a number of substances and materials no longer in use due to increased knowledge with regards to their characteristics and consequences to human health and the environment. These include but are not limited to;

- Asbestos (used as insulation as well as a component in other materials – mostly related to thermal applications)
- PCB
- Heavy metals

A substantial volume of the vessel is that of hotel-alike construction. It is commonly known that asbestos was an important component in materials applied for such

constructions in the period in question. This includes in particular ceiling plating as well as walls and doors and in many cases also in floors. Asbestos was used in these constructions in order to improve heat resistance in case of fire.

Further, the SS Blue Lady was built with steam turbine propulsion. The massive heat producing and associated systems supplying such turbine machineries are in a historical perspective always insulated using asbestos materials. Thus, it should be considered inevitable that the SS Blue Lady also has considerable amounts of various asbestos materials in all machinery and engine compartments.

Furthermore, at the point in time when the vessel was built, the use of asbestos containing paints on exposed steelworks was not uncommon. One such product was known under the trade name "Bitumatic". Areas where this or similar asbestos-containing paints may have been used include ballast tanks, chain lockers, portholes, etc. It is previously established that this product was used in the building of the SS Blue Lady.

Taking into consideration the nature of the trade of the vessel and the increasing knowledge and focus on hazardous materials exposure over the period from 1980 to 2001 – when the vessel underwent 7 conversions of various degrees, it is likely that some form of relevant inventory survey has taken place. This implies that there are some data relevant for the development of a hazardous materials inventory. However, it is unlikely that this exists for the entire vessel and for all materials of relevance in this respect.

Following the decision not to repair the vessel, it is known that one interest, considering converting the ship into a hotel/ casino facility, had a partial asbestos survey undertaken. The purpose being to establish likely amounts of asbestos, challenges associated to its removal and lastly, an estimated cost associated to its removal. The survey report is the property of the French company Pierre & Vacances and may be made available by them. Since the plans on converting the vessel were dismissed after the survey was undertaken, it seems reasonable to assume that the report had revealed considerable costs associated to the asbestos removal as required. It may also be assumed that the interested party also envisaged consequences of removal of additional potentially hazardous materials integrated in components and structures.

Financial aspects associated to the ss blue lady

From the US Security and Exchange Commission (SEC) document Form 20-F filed on 28 March 2006, by NCL for the year ended 31 December 2005 and other relevant SEC documents pertaining to NCL corporation Ltd., the following financial considerations concerning the vessels are revealed;

April 2004 – the vessels value is reduced to \$ 46.5 million. It seems likely that this depreciation of the vessel reflect the decision not to repair the vessel but to look for different solutions. The timing of the deprivation coincides with the announcement made by the company not to repair the vessel.

October 2004 – a correction of the value is made (\$26.8 million) reflecting the settlement related to insurance following the accident.

December 2004 – the value of the vessel is reduced to its salvage (scrap) value of \$12.3 million.

The final value correction coincides with the timing of the asbestos survey undertaken by the French interest. It seems likely that the owner following this survey considered the vessel as not sellable for other purposes than for recycling (scrapping). At this point in time, the vessel was still berthed in Germany.

summary

There is no reasonable doubt associated to the presence of hazardous materials onboard the SS Blue Lady. It is likely that these materials will include not only asbestos but also PCBs and a range of other potentially hazardous materials including heavy metals.

It is not possible to provide an accurate figure with respect to the quantities of these substances unless the vessel is surveyed or results from previous surveys are made available subject to the validity of any such surveys. However, by the use of coarse approximation methods, it is likely that the asbestos presence today equals the original volume that was used when the vessel was built and that this volume is in the region of 1,000 tons.

The vessel has undergone a number of conversions. These are non-structural to a large extent and relatively limited with respect to the entirety of the vessel. This suggests that removal of hazardous materials in connection to upgrading and conversions have been limited.

PCBs and heavy metals including arsenic (As), cadmium (Cd), chrome (Cr), copper (Cu), lead (Pb), nickel (Ni), zinc (Zn) and mercury (Hg) were commonly used in paintwork and coatings in the 1950's and 1960's. Lead-based primers were the "industrial" standard at the time and one should expect these substances to be present still in a number of sections of the vessel. Note further that PCBs were frequently used in electrical components such as capacitors, but also in insulating material in cabling. Recent studies have revealed considerable amounts of PCBs in cabling in vessels of this era.

Looking at the continuing depreciation of the reported value of the vessel, finally reaching its scrap value, and the development regarding its fate, it seems reasonable to conclude that it is likely that the owner had concluded that the only option was to sell for scrap. At this point in time, the vessel was located in Germany. These circumstances may suggest that there may be grounds to consider the application of the provisions of the Basel Convention in conjunction with the further transfer and sale of the vessel.

Recommendations

The release of the onboard asbestos survey report is likely to confirm a more accurate figure with respect to onboard amounts and details regarding its accessibility. This information will be of value in assessing the removal options that exists. However, since this survey was partial, assuming this refers to the vessels compartments, it may be considered that a new asbestos survey is needed. Regardless, since there is no complete inventory survey available with respect to other materials, it is recommended to undertake comprehensive all inclusive potential hazardous materials inventory survey.

Removal of hazardous materials, especially asbestos as seen at the Asian recycling/scrapping facilities, including the Alang facility in India, is recognised by material contamination aggregation. If asbestos is removed using the current methods, it is likely that the amount of contaminated material will increase with a factor of 10. This is primarily due to inability to isolate the substance both in association to actual removal but also in relation to transportation and storage. It is not impossible to undertake these operations “on location”, however, that would require training, investment and facilitation. Such may be offered from certified asbestos removal companies.

The issue related to aggregation of hazardous waste due to on site contamination is also relevant for other hazardous materials incorporated in structure and components.

Asbestos is still in use in products manufactured in countries including India and Bangladesh. The supply to manufacturing entities of recycled asbestos from ship disposal and recycling activities are an important source in this respect. A mechanism ensuring asbestos to be phased out of the market is required in order to combat the manufacturing and usage of components containing asbestos. If one where to consider on-site asbestos removal under the facilitation of internationally recognised asbestos removal contractors, one should establish such mechanisms ensuring that the asbestos was finally disposed off in an environmentally sound manner and finally removed from the market.