



THE
PROBO KOALA
INQUIRY

conducted by Lord Fraser of Carmyllie PC QC



**THE RT. HON. THE LORD FRASER
OF CARMYLLIE PC QC****A SECOND INTERIM REPORT****THE PROBO KOALA INQUIRY**

In May 2008, I published an Interim Report. At the time I expressed my frustration that due to a number of factors beyond my control I was unable to fulfil my task within the planned timescale. The civil and criminal proceedings in this country or elsewhere were among these aforementioned factors. I reserved to myself the right to comment freely when these legal proceedings were concluded. While some of the matters have now been resolved, unfortunately there are criminal prosecutions still pending that prevent me from concluding my work. I have, however, decided that at this point it is appropriate to publish a Second Interim Report.

I repeat my terms of reference:

The voyage history of the chartered vessel Probo Koala during June to August 2006 and the subsequent events in the Ivory Coast following discharge at the Port of Abidjan.

Organisation and operating procedures of the Company and comparison with other oil trading companies.

Port facilities and practice (including end disposal) relating to collection transport and safe disposal of waste products associated with maritime and oil trading companies.

Existing legislation and International Conventions.

EXECUTIVE SUMMARY

Since the publication of my Interim Report in May 2008, I have continued to gather information, having meetings with a wide variety of interested and other parties and monitored developments in the UK, Amsterdam and Abidjan.

In October of that year, a court in Abidjan handed down jail terms of 20 years and 5 years to two people for the dumping of the waste from the Probo Koala. The figure for the number of deaths stated in that court case was given as 17. This figure was not, however, forensically justified and seems to have been arrived at by the route of concession not evidence. The head of Compagnie Tommy, Nigerian national Salomon Amejuma Ugborugbo, was jailed for 20 years. Kouao Essoin, also known as Désiré, a shipping agent in the Port of Abidjan who had recommended Tommy, was found guilty of complicity in poisoning and jailed for five years. Seven others were acquitted. That trial warrants further analysis but records or transcripts are not as full as I would have wished.

I attended the International Conference on The Environmentally Sound Management of Waste Generated at Sea held in Marseilles, France, from 24 to 26 November 2008. It was organised under the High Patronage of the French Minister for Ecology, Energy, Sustainable Development and Town and Country Planning, the French Presidency of the European Union and in partnership with the Region Provence – Alpes – Côte d’Azur, Marseille Fos Port Authority and the UN Secretariat of the Basel Convention.

During the Conference I met with a large number of delegates and some of the key speakers including the conference chair Roy Watkinson, formerly the UK Department of the Environment’s Deputy Head of Wastes Technical Division and Pierre Portas, who in 1989 was asked to set up the Secretariat of the Basel Convention and was its Deputy Executive Secretary until 2007. He is now the President of WE2C.

I also met with Ms Louise de La Fayette, visiting Professor, Maritime Institute, University of Greenwich, UK. She was an international lawyer and diplomat and formerly worked in the Canadian Department of Foreign Affairs, mainly on the law of the seas and international environmental law. Ms de La Fayette was Principal Officer and Head of International Co-operation and Co-ordination in the United Nations Division for Ocean Affairs and the Law of the Sea. At the time of the Conference, she was an International Legal Adviser for the Advisory Committee on the Protection of the Sea and a member of the IUCN Commission on Environmental Law.

Ms de La Fayette delivered one of the most interesting speeches of the conference dealing with the Regulatory Perspectives and Experience. During our conversation, I learned that she was working on a paper examining the International and European Community Law applicable to the Probo Koala. She provided me with a copy of her paper which I comment on elsewhere in this Report. Ms de La Fayette has also agreed for me to publish her

Report as an appendix. There were a number of interesting contributions but not as relevant to this further Report as hers. Sadly, she died in late 2009.

On 26 November, 2008, I flew to Amsterdam to meet with Professor Okechukwu Ibeanu, a Special Rapporteur of the United Nations Human Rights Council on the adverse effects of the illicit movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights. I expand on this later and also comment on his report to the United Nations.

I started to plan for a second visit to Abidjan early in 2009. I was particularly keen to visit some of the sites where the independent environmental and health work was conducted by WSP. I flew to Abidjan on 20 April 2009. Several weeks before I wrote, in French and English, to a large number of government agencies and individuals offering an opportunity to meet with me during my week-long stay. Many, if not all, of those were the same people Professor Ibeanu had interviewed during his earlier visit. It is with some regret that I report that I received only one response, delivered via a third party, indicating the official concerned had moved on and had nothing further to add to information previously supplied and published.

During my stay I discovered members of Leigh Day's legal team were staying at the same hotel and contacted Martyn Day to offer a meeting and ask if he wished me to speak with any individuals in Abidjan, either members of his team or others with whom they were in contact in the city. Martyn advised his team were fully committed but I did accept an invitation to meet with him in London. I met with him and one of his colleagues at his office on 11 June 2009.

As has been widely reported, the civil case in the United Kingdom was settled in September 2009. A joint statement issued by both parties recorded that 20 independent experts appointed by both parties for the litigators were unable to identify a link between exposure to the chemicals released from the slops and the deaths, miscarriages, still births, birth defects, loss of visual acuity or other serious or chronic injuries. In light of the expert evidence the joint statement concluded the slops could at worst have caused a range of short-term low level flu like symptoms and anxiety.

Each claimant – around 30,000 – was to receive approximately £950 as part of the settlement. Although a sum of around £30million was paid by Trafigura last year I am disappointed to note that, at time of writing, the unfortunate claimants had not received a penny, as the funds were caught up in yet another legal wrangle, this time in Côte d'Ivoire. This is disgraceful. In the main, the population of Côte d'Ivoire is very poor. Any monies for them should have been paid as soon as possible.

Under the settlement, Trafigura paid a further £30million on account to Leigh Day & Co to cover their legal costs. In Abidjan I did meet with some claimants. They had high

expectations. Just as some years ago in this country the Miners Compensation Scheme raised expectations and now, as then, it was the lawyers who gained to a far greater extent than the clients. Media coverage of the case and the lead up to it resulted in litigation by Trafigura which was not part of my remit. Prior to the settlement there were some wild and inaccurate reports. Justice Macduff, who presided over the civil case, commented that having read expert reports he was aware that the slops could not give rise to the sort of symptoms and illness claimed in some of the press reports. His hope that the media would take account of the joint statement – which he regarded as 100 per cent truthful – and put things right and in perspective fell on deaf ears.

Head two of my original remit was to consider the organisation and operating procedures of Trafigura and those of other oil trading companies. I have been exploring this and there appears to me to be no glaring departure by Trafigura from procedures followed by other oil trading companies. BP's procedures can be accessed on the internet and I am not aware of any substantial departure by Trafigura from what is good trading practice and no 'whistleblower' has contacted me to suggest the contrary. My remit is, I believe, well-known within Trafigura.

Since my initial Report, I have also continued to meet individuals in the House of Lords and other locations to discuss specific aspects of my remit and draw on their knowledge of industry procedures. I have now gathered boxes of information and electronic data. Most, if not all, is already in the public domain and after reading them I have drawn on those parts that I feel are relevant to prepare this Report.

THE HISTORY OF THE VOYAGE

Trafigura chartered the Probo Koala under the terms of a time charter entered into on 25 October 2004 between Trafigura Beheer B.V. and Probo Koala Shipping Inc. While the incident at the centre of this inquiry took place in Abidjan, the background has a potentially important impact. As part of their trading operations, I understand Trafigura was carrying out gasoline blending and caustic washing on board the vessel in international waters. This involved the addition of caustic soda and a catalyst to the Probo Koala's naphtha cargo to remove mercaptans. This is a recognised procedure which oil companies adopt to improve naphtha. The slops, which arose as a result of these caustic washing and blending operations, were stored on the Probo Koala in separate tanks.

On 2 July 2006, the Probo Koala called at Amsterdam port in the Netherlands to discharge the slops contained in the vessel's dedicated slops tanks. The vessel was en route to Paldiski, Estonia, to load gasoline for delivery to Lagos, Nigeria.

Prior to arrival in Amsterdam, a fee had been agreed with a slops removal company, Amsterdam Port Services BV (APS). However, when approximately half of the slops had been discharged, APS increased the price by 3,000%. Trafigura's agents' view was this increase in price was provided without any credible justification. Discussions then followed between APS and the Amsterdam environmental authorities and, as I understand it, Trafigura took no part in these discussions. APS then informed the ship's Master that the authorities had given permission for the slops previously removed to be returned to the vessel.

The Probo Koala departed Amsterdam on 5 July 2006 for Paldiski, Estonia, with the full knowledge and approval of the Dutch authorities. The vessel sailed to Paldiski, arriving there on 9 July 2006 where it unloaded approximately 3,300 metric tonnes of gasoline and loaded approximately 26,000 metric tonnes of unleaded gasoline from shore tanks at the Alexela Terminal. The Probo Koala departed Paldiski on 13 July 2006 on its pre-planned voyage.

It arrived in Lagos on 30 July 2006. The purpose of the visit was to discharge unleaded gasoline to Pipelines Products Marketing Company Limited. This was completed on 16 August 2006 and the Probo Koala left Lagos on 17 August 2006.

I am informed that it is normal for unloading to take this length of time in Lagos. I have also been informed that during the ship's stay in Lagos there were two offers to take the slops to shore. One involved offloading into an open barge, which the ship's Master refused. The second involved offloading into oil drums. The potential buyer planned to allow the slops to settle to reclaim useable oil and sell it on. The Master also refused the offer as, I understand it, he had concerns about the unlicensed import of hydrocarbons.

On 19 August 2006, the Probo Koala arrived at Abidjan. This had not been part of the original pre-planned voyage. Abidjan is, however, widely considered as one of the most advanced ports in West Africa. During both of my visits there I ascertained that many oil companies have had a long history of safe transport operations to Abidjan. Trafigura and other major oil trading companies had previously unloaded oil-related products and discharged slops on a regular basis in Abidjan without incident.

The Port of Abidjan is the largest trading port in West Africa with a water area of 1,000 Ha, 34 quay berths, 16 anchoring berths, 5 mooring buoys, 3 offshore berths, 143,507 m² of warehousing, 407,568 m² of external storage, 32 Ha of container yards and 6.2 Ha of truck parking. Over 2,500 vessels berth at the port each year and up to 60 vessels can berth at any one time. It has reception facilities capable of handling container ships, chemical carriers, Liquid Petroleum Gas carriers and Bitumen carriers as well as large tankers for the loading and offloading of hydrocarbons. It has been accredited under the International Port Security Program since July 2004. In the period of 1 January - 6 September 2006, 30,000 tonnes of hydrocarbon residues and waste water were disposed of from ships in the Port of Abidjan. This description belies the impression given in some quarters of an under-developed back water.

On 17 August 2006, Mr Jorge Luis Marrero, an employee of Trafigura Limited, contacted Captain Kablan. Captain Kablan was the resident head of Puma Energy in Abidjan, a wholly-owned subsidiary of Trafigura. Mr Marrero was seeking to determine that, subject to the availability of a jetty and a reputable slops company, the Probo Koala could call at the Port of Abidjan on 19 August 2006. Mr Marrero further informed Captain Kablan that the slops smelled and that it was important that the slops should be handled correctly and in compliance with all applicable local and international laws governing the disposal of slops.

Following a number of telephone conversations and emails with Trafigura, Captain Kablan contacted Francis Kuassi at SIR Refinery to confirm a booking of the Petroci Jetty on behalf of Trafigura for Saturday 19 August 2006

On 18 August, Trafigura nominated WAIBS, a longstanding and experienced shipping agent in Abidjan for oil companies as shipping agent. Trafigura had been using WAIBS for 3 years as its shipping agent at the Port of Abidjan. WAIBS was asked to nominate a reputable and licensed company to handle the slops. WAIBS nominated Compagnie Tommy as being capable of carrying out the work. I should like to explore that further as the suggestion was made that Trafigura set up Tommy quickly knowing it had a problem. I have, however, found no evidence to substantiate this claim.

Compagnie Tommy was fully informed of the nature of the slops and the fact that they were to be handled correctly to avoid any environmental concerns. Compagnie Tommy produced its operating licences for the task. The documents were checked to confirm that Compagnie Tommy was licensed to receive slops discharged from vessels at the Port of Abidjan. Further, Puma Energy also checked with the port authorities in Abidjan and they

confirmed that Compagnie Tommy had the necessary documentation to receive slops on discharge from vessels in the port.

After berthing, the Probo Koala was inspected by the Ivorian officials, as routinely occurred on arrival at Abidjan. None of those officials reported anything unusual.

The unloading of the slops commenced at 13.30 hours on 19 August 2006 and was completed at approximately 19.00 hours on 20 August 2006. The slops were loaded into a series of tankers that attended the Probo Koala on its berth. This unloading of the slops was overseen by a team from Ivorian Customs headed by Mr Yao Kuassi.

The slops were discharged into waiting trucks under the supervision of the Port Authorities and Customs. Compagnie Tommy, or others, subsequently dumped the slops, untreated, in and around Abidjan. The evidence is so tainted that no one could reasonably conclude whether this was part of a pre-conceived plan or panic 'fly tipping' with the original purpose having been to sell on the slops as notorious 'black fuel'.

Trafigura has publicly stated that Compagnie Tommy's conduct in dumping the slops in this manner was utterly reprehensible, illegal and a flagrant breach of Compagnie Tommy's licence and undertakings to them. It is my understanding that the slops contained a high percentage of hydrocarbons. It is also my understanding that these should have been capable of recovery even using the simplest method of leaving them in a container to allow the valuable parts and water and other items to separate naturally.

On 21 August 2006, residents in and around Akouédo village complained of odours coming from the Akouédo site. On 25 August 2006, the Ivorian Government informed the Basel Secretariat of a pollution problem and requested assistance. The Ivorian Government further stated that the pollution problem was not confined to Akouédo but emanated from numerous locations in Abidjan.

On 3 September 2006, reports of casualties were made. By 11 September 2006, the United Nations Disaster Assessment and Co-ordination, World Health Organisation, United Nations Office for the Co-ordination of Humanitarian Affairs and the Basel Secretariat were all present in Abidjan. These agencies were reacting to a series of reported deaths and over 3,000 people seeking medical care.

On 17 September 2006, Tredi, the French company, commenced clean-up works at Akouédo. By 14 October 2006, 16 allegedly contaminated sites had apparently been identified and 13 had allegedly been de-polluted by Tredi.

In addition, in September 2006, Trafigura Chairman Claude Dauphin decided to visit Côte d'Ivoire to see what assistance Trafigura could provide in and around Abidjan. He was accompanied by Jean-Pierre Valentini, the manager of the West Africa desk at Trafigura, who had visited Abidjan twice before. They, together with Captain Kablan, were arrested and imprisoned until their release in February 2007. I had been told their release was imminent in November/December 2006.

As indicated in the First Interim Report, there are proceedings in a number of different jurisdictions. Proceedings are still ongoing. As I explained in my First Interim Report, I had been reluctant to analyse the evidential issues in any significant detail for fear of causing prejudice to preparations, deliberations and outcome of any judicial decision. At time of writing, it is my understanding that criminal proceedings are ongoing in the Netherlands.

It is a matter of public record that in February 2007, an agreement was reached between Trafigura and the Government in Côte d'Ivoire in which both parties agreed to terminate all ongoing civil legal action in Côte d'Ivoire. The agreement also included a promise by the Ivorian state to indemnify any individual validly claiming to have suffered harm.

As a contribution towards the compensation for these individuals and for improving the environment in Abidjan – including assistance towards the construction of a domestic waste disposal plant – Trafigura made a payment of USD198 million to the Côte d'Ivoire Government.

Again it has been widely reported that as a major trading company in West Africa, Trafigura considered it had an economic and humanitarian responsibility to the region but not a legal responsibility for the event itself. This is, in itself, interesting. A major company like Trafigura accepts a responsibility when in law it could evade.

I understand that as part of this agreement, Trafigura agreed to liaise with the Côte d'Ivoire state environmental agencies for the performance of an independent environmental audit in Abidjan. The audit was aimed at identifying any sites still polluted by the dumping of the slops by Compagnie Tommy or others and, if required, agreeing a strategy for their remediation. Any work undertaken was to be funded by Trafigura, as per the agreement, in addition to the original payment.

A significant amount of investigation has been undertaken and an independent environmental audit was carried out by the French company, Burgeap, and I saw some of this work during my first visit. As I understand it, the investigations demonstrated that, on the basis of European environmental standards, no further intervention works would be required given the low levels of contamination found. However, it was agreed by all parties that a limited amount of additional remedial work would be done in order to address odour concerns. Therefore, an endorsement to the February 2007 agreement was signed in April 2008 to complete all remedial work and also to undertake follow-up monitoring operations

and Trafigura paid an additional sum of €7.6 million to the Côte d'Ivoire Government. The Côte d'Ivoire Government agreed that it would conduct follow-up operations and post-works monitoring through its specialist environmental agencies.

Separately, an additional sum of €7.6m – which was originally stipulated within the February 2007 agreement to be used for a waste water treatment plant – was paid by Trafigura to the Côte d'Ivoire Government and was to be used for purposes connected with general healthcare, education and environmental issues.

In October 2008, following a trial in the Ivorian Criminal Court, as narrated in the Executive Summary, two individuals were convicted and given long jail sentences as a result of their roles in the illegal dumping of the slops. These two individuals were Nigerian Amejuma Salomon Ugborugbo, the General Manager of Compagnie Tommy, and Ivorian shipping agent Kouao Essoin, also known as Désiré, the WAIBS employee who made the recommendation of Compagnie Tommy to receive the slops from the Probo Koala. Although it appears no appeal is to be taken, for my purposes this is wholly unsatisfactory. Too much proceeds on the basis of concession. I have thus far been unable to explore such concessions but do wonder whether they would be compliant with the standards of the European Court of Human Rights.

In November 2006, an action in the English High Court was initiated by Leigh Day & Co. on behalf of individuals from Côte d'Ivoire, claiming they had suffered personal injury and financial loss due to Trafigura's actions. I was appointed to head this independent inquiry prior to that action being raised and I have previously explained my frustration and clear legal reasons for being unable to proceed on my original timings. Notwithstanding my frustrations, I immediately met with Leigh Day.

In October 2008, Leigh Day & Co agreed to a case management proposal which had been made by Trafigura. Under the terms of this proposal Trafigura agreed to abide by the findings of the Court in relation to issues of causation and quantum, without requiring the Claimants to prove that Trafigura breached any legal duty of care. In other words, Trafigura would pay any damages assessed by the Court if, in due course, the Court found that the Claimants were affected by the slops in the ways alleged by Leigh Day & Co in the proceedings. There was no admission of liability by Trafigura but the agreement was designed to save considerable time and cost. That was the point of Trafigura's explanation to Professor Ibeanu during my meeting with him in Amsterdam.

In September 2009, agreement was reached. A joint statement issued by both parties recorded that 20 independent experts appointed by both parties for the litigators were unable to identify a link between exposure to the chemicals released from the slops and the deaths, miscarriages, still births, birth defects, loss of visual acuity or other serious or chronic injuries. In light of the expert evidence the joint statement concluded the slops could at worst have caused a range of short-term low level flu like symptoms and anxiety.

I was aware and remain aware of other proceedings in the High Court between Trafigura and Leigh Day & Co. but I do not believe this Report will impact on them or that they fall within my remit.

The proceedings in the Netherlands against Trafigura and an employee may see a trial in June 2010. A case brought against the Trafigura Chairman was dismissed in June 2008 but the Dutch Public Prosecutor appealed against the decision. That was rejected in December 2008 but I understand the Dutch Public Prosecutor has now made a further appeal to the Supreme Court of the Netherlands. My knowledge of the Dutch legal system is limited and I have been unable to determine an accurate time for the conclusion of court action there. Should that appeal succeed, my understanding is that a further appeal will be taken to the Court in Strasbourg. Given their well known backlog, unrelated to this case, 2015 looms. That is in no one's interest.

As mentioned earlier the United Nations sent several representatives to the Ivory Coast in August 2006.

Three weeks after the slops were discharged and then dumped, the UN team investigating the incident (UNDAC) reported that, "...mercaptans have strong smells at low concentrations [and are] detectable by the human nose at concentrations far below danger levels. This may give a false impression of toxicity". Given that concession it makes my task in assessing toxicity that much more problematic.

In 2004 Professor Okechukwu Ibeanu was appointed a Special Rapporteur of the United Nations Human Rights Council on the adverse effects of the illicit movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights. In August 2008, Professor Ibeanu's mandate was extended to include an investigation of the Probo Koala incident. As Ms de La Fayette correctly observes the Basel Convention was a UN initiative but careful analysis of its applicability is necessary.

I am aware that following the announcement of the extension of his mandate to include the Probo Koala incident, Trafigura contacted Professor Ibeanu, confirming their wish to co-operate with him should he require the company's assistance. Trafigura made itself available at all times to meet with Professor Ibeanu and his team. As I understand it, there has been only one direct invitation from Professor Ibeanu to discuss the issues with him and he met Eric de Turckheim, Director together with a member of Trafigura's legal team in September 2008 in Geneva. Professor Ibeanu was given a presentation of the relevant issues by the Trafigura personnel.

I met with Professor Ibeanu in November 2008 at the end of his mission to the Netherlands. The meeting took place at the Head Office of Trafigura in Amsterdam and Eric de Turckheim was present at the start, only to forge introductions and to facilitate the

meeting. My understanding was he visited the offices to determine for himself that it was indeed an integral part of Trafigura and not just a convenient “brass plate”. It is also my understanding that he was reassured by that visit and nothing in his valuable Report shifts me from that assessment.

Following the meeting, Professor Ibeanu held a press conference at which he made certain comments. These comments were of great concern to Trafigura and prompted Trafigura to write to Professor Ibeanu setting out Trafigura’s position and suggesting a further meeting. Professor Ibeanu replied that he would not agree to a further meeting because he had, by then, concluded the fact finding part of his work.

I also wrote to Professor Ibeanu after our meeting and provided him with some additional information, having provided him a copy of my first Interim Report at our meeting in Amsterdam. It was my clear understanding from our meeting, that we had agreed at his suggestion to try to assist each other but I subsequently received a letter informing me that this was not possible. I was concerned to discover that his Report to the United Nations describes me as an ‘adviser’ to Trafigura and I sought to have this clarified prior to publication. I am, as has been clearly accepted by all other parties involved in this case, completely independent although commissioned by Trafigura to investigate and report as per the terms of my reference. I refer elsewhere in this Report to the content of Professor Ibeanu’s Report to the United Nations.

On 18 September 2006 UNOSAT produced a map of the sites at which it was alleged that disposal of the slops had taken place. They are Abobo (and Dokui Plateau Lagoon), Abobo Boulangerie, Aboboa Coco Services (Ravine and Truck Wash), Akouédo (Bridge, Truck stop and runoff area), Djibi (Alépé, 3 areas), Forêt de Banco, Koumassi, Maca (3 areas) and Vridi. I have visited most, if not all, of the sites during my visits to Abidjan.

In the immediate aftermath of the Probo Koala incident and as a result of Côte d’Ivoire’s initial concerns regarding the disposal of the slops and its affect on the environment, the Ivorian Government contracted with a French company called Tredi to remove large amounts of waste. I am still not clear if this trans-border movement complied with the Basel Convention but with France as the receiving State it would be a reasonable assumption that it did.

Tredi is a business unit of Séché Environment and manages the remediation and handling of hazardous waste for its clients. It commenced its work in Abidjan on 17 September 2006 and was contracted to continue its work though until 30 June 2007.

It appears that the work undertaken by Tredi largely comprised the excavation of wastes (9,322.237 tonnes) and the incineration of that waste.

I previously expressed my frustration at being unable to visit the incineration plant at

Salaise-sur-Sanne, although this was clearly in my plan. So I was infuriated to learn that the operation had been completed, well ahead of the scheduled time and without the opportunity for me to visit. I have, however, seen reports of the analyses of what was removed. These indicated that the material was contaminated by waste materials other than the slops. This was due to the presence and levels of heavy metals contamination while samples of the slops revealed only trace concentrations of heavy metal. In addition, the materials removed by Tredi revealed the presence of hydrocarbons within the C14 to C40 range by contrast to the slops, which, I understand, would have fallen almost exclusively in the C5 to C11 range.

Following Tredi's work, Trafigura and the Côte d'Ivoire Government entered into a settlement previously referred to, the provisions of which included the appointment of an environmental consultant to further assess the environmental conditions at the alleged disposal sites.

The French company, Burgeap, was appointed to undertake the independent environmental audit.

The first phase of Burgeap's investigation was to review existing information, more specifically to collect information regarding:

- the development of the situation in Abidjan since the slops arrived;
- the chemical properties of the slops that were deposited;
- a list of the sites at which the slops were deposited;
- an analysis of the work required under Tredi's contract with Côte d'Ivoire;
- an analysis of the results of Tredi's work;
- a preliminary inspection of the sites identified where the slops were deposited; and
- the preparation of measures for any additional investigation and/or remediation required as a result of the above work.

This phase of work took place over the course of May and June 2007.

Burgeap then met with Trafigura and Côte d'Ivoire state environmental agencies on 6 July 2007 in Paris to discuss the progress of the work being undertaken and the further work that was required. At this meeting, it was agreed that the next stage of Burgeap's work should focus on the potential for contamination at the Alépé Road and that Alépé Road would be used as a trial site.

Burgeap carried out their analysis at Alépé Road between 16 and 23 July 2007. The investigations demonstrated that, on the basis of European environmental standards, no further intervention works would be required given the low levels of contamination found. However, Burgeap could not rule out the potential for some odour issues.

It was agreed by all parties that a limited amount of additional remedial work would be done to address odour concerns and an endorsement to the February 2007 agreement was signed in April 2008 which stated, amongst other matters, that Trafigura:

- had completed and complied with all its obligations under the agreement of February 2007; and
- would pay an additional sum of €7.6 million to the Côte d'Ivoire State to enable them to conduct follow-up operations and post-works monitoring in respect of the odour concern.

In December 2008, WSP was appointed to undertake an independent assessment of the position regarding contamination. As it was to be independent, unsurprisingly I attach value to their work.

WSP is the environmental division of WSP Group Plc. WSP Group Plc is a global design, engineering and management consultancy business creating natural environments for the future. It has over 10,000 employees working in over 35 countries.

WSP was instructed, on behalf of Trafigura, to undertake an independent environmental investigation in and around Abidjan to consider if residual contaminants associated with the slops remained at alleged disposal sites and what, if any, health risks these contaminants posed. This investigation included independent soil, sediment, water and ambient air sampling.

WSP's investigation was divided over a number of stages, each of which was to be adapted in light of the conclusions of the immediately preceding stage. The Report has, as a result, taken the form of three distinct stages:

- The first stage of WSP's work was to review the available information, visit the majority of the sites where it was alleged that slops had been deposited and undertake exploratory investigations of a sample of those areas;
- At the second stage, WSP provided a contextual assessment of Abidjan looking, in particular, at the general environmental conditions in the city - through analysis of sediment surface water, drinking water and ambient air issues - and relate these to human health issues experienced in the region; and
- Lastly, a third stage, which reviewed the current operations implemented by the Côte d'Ivoire state to clear municipal waste in and around Abidjan as well as investigating recent allegations in the media of ongoing health impacts associated with reclaimed material stored at Alépé.

WSP commenced their work with a review of all relevant information. This included information regarding the slops, the work undertaken by Tredi and Burgeap and reports produced by various organisations, including the United Nations, in respect of the events following the dumping of the slops by Compagnie Tommy or others.

Following their review of the information highlighted above, WSP, in December 2008, visited the majority of the sites where it was alleged that the slops were deposited.

WSP then returned to the Côte d'Ivoire in January 2009 to undertake a more detailed review of a sample of the sites visited in December 2008. In addition, WSP also viewed some control sites (sites where there were no allegations that the slops had been deposited) in order to be able to compare results. The investigations examined the air, soil, sediment and surface water for the presence of residual contamination that may have been associated with the slops.

The conclusions reached by WSP as a result of the first stage of the works were:

- That there was no risk to human health at the sites reviewed by WSP in January 2009 as a result of contaminants potentially relating to the slops; and
- That a number of environmental issues not related to the slops were identified at some of the alleged disposal sites, as well as other control sites, suggesting historical contamination associated with other processes and/or activities.

For the second stage of WSP's investigation, it was instructed to carry out a contextual assessment of the general environmental conditions in Abidjan with particular regard to human health experiences in the region. As part of this stage of the investigation, WSP carried out:

- A desk study review of relevant information on Abidjan as well as comparable African locations; and
- Further air monitoring (focussing on benzene and other hydrocarbon contaminants) at some selected sites around Abidjan as well as other limited sampling activities.

The conclusions of WSP's second stage of investigations largely fall into two sections:

- (i) conclusions on the general environmental conditions in Abidjan and
- (ii) specific conclusions based on the sampling and analysis undertaken.

In respect of general environmental conditions in Abidjan, WSP found that the city is, in the context of Sub-Saharan Africa, a relatively modern industrial city as a result of the investment in oil and gas, manufacturing, chemicals and food processing sectors together with infrastructure such as the port and airport.

However, the population had grown as a result of the past successes of the city and the general trend of urbanisation.

WSP identified a number of issues (unrelated to the slops) in and around Abidjan associated with these human influences, in particular, poor municipal waste disposal and treatment, air pollution and contamination of surface waters.

WSP concluded that these issues represent potentially significant health risks and are linked to current and past environmental conditions, which would have arisen primarily due to human activity.

WSP's second stage of investigations identified that one of the causes of the ongoing environmental and health issues in and around Abidjan was poor municipal waste disposal/treatment. In March 2009, a clean-up campaign was announced in Abidjan with the intention of clearing one million tonnes of municipal waste from the city using World Bank funding (Operation Clean City).

To ensure that WSP's assessment of the environmental and health issues remained up to date, a final report was commissioned to evaluate the progress and effectiveness of Operation Clean City and consider what impact, if any, it has had on the conclusions of the first two reports.

Although WSP saw evidence of Operation Clean City succeeding, waste was generally only being collected from the main roadways, but not the side streets and back alleys. Although improving the situation, the remaining municipal waste still poses an ongoing health issue.

It is not for me to criticise the Government of Côte d'Ivoire but their tourist potential is massive though that potential will only be realised when US and Western Europe tourists feel it is both safe and healthy. I have to say that I have been impressed by WSP's objective analysis. I am a lawyer not a scientist. That rigour of thinking causes me to challenge everything. I do wish I could find a chink in the WSP text but I cannot.

During this final stage of investigations WSP also considered reported health impacts (for example, stinging eyes) associated with reclaimed material stored at Alépé. WSP visited the storage site and undertook basic air sampling. No hydrogen sulphide was detected at this site nor was any olfactory discomfort experienced by those undertaking the sampling.

During my visit to Abidjan in April 2009 I met with Tim Clare, a Technical Director of WSP Environment & Energy, and visited some of the sites where he and his staff had carried out their research. Subsequently, in July 2009, I met him in London and was given a detailed presentation of the findings by him and his fellow director Clive Griffiths.

By any standards - international, humanitarian and ignoring business acumen even common sense – the actions of Compagnie Tommy or those who dumped must be regarded as wholly unacceptable. The pollution recorded by WSP – samples that contained mercury, plastic waste, human excrement and much more – clearly demonstrates a much wider issue and certainly high levels of waste that could not in any way have been attributed to the slops removed from the Probo Koala.

I observed marked efforts by the Government of Côte d'Ivoire, investment in new infrastructure and plant. I am, however, not persuaded that worthy as these efforts may be, the sole cause of the environmental disaster should be placed at the door of Trafigura. That remains for a final Report but unless I hear from a 'whistleblower' (there's a contact link on my website www.probokolainquiry.com), I have to be persuaded that Trafigura were bad guys in Côte d'Ivoire.

Professor Ibeanu leads in grasping that the developed nations should stop using Africa as a dumping ground for its dangerous toxic waste. I applaud that. Africa is a continent with huge potential. It is not just a repository for Western waste.

THE IBEANU REPORT

Professor Ibeanu was appointed a Special Rapporteur by the United Nations and the terms of his Remit were: “the adverse effects of the movement and dumping of toxic and dangerous wastes on the enjoyment of human rights”.

After diverse difficulties he visited Côte d’Ivoire in August 2008 and as his subsequent Report reveals he met a considerable number of ministers and officials. These are all carefully set out in paragraph 3 of his Introduction. It is to his credit that he managed to secure an invitation to Côte d’Ivoire and to meet so many important people. Unfortunately for my purposes while he narrates the names of those he met, he provides no assessment of the evidential value of what they told him nor indeed is there any raw account of what they told him enabling an independent assessment of the value or worth of their evidence. Sadly then it is of little forensic worth to me. Regrettably in his Report he describes me at p.6 as “an external adviser appointed by Trafigura”. It is correct that my terms of reference were settled with Mr Graham Sharpe of Trafigura who has since retired but my remit as I set it out in my first Interim Report and in this Report was not to act as “an external adviser” to Trafigura but to conduct an independent inquiry.

In 2009, as I have narrated earlier, I flew to Amsterdam to meet Professor Ibeanu. That was both inconvenient and surprising as I understood, at the time we met, he was lecturing at London University where we could have met at greater length and in a more leisurely fashion. Nevertheless the meeting in Amsterdam was both positive and helpful to me. Professor Ibeanu was shown round Trafigura’s office there, the purpose of which was, as I understood it, to demonstrate Trafigura’s operations in Amsterdam were not a mere “brass plate” activity but an elaborate part of their overall operations.

Thereafter we met privately with only his secretary and my aide Archie Mackay present. The only brief Trafigura intervention was when they were called in to explain the extent of any concession in the London civil proceedings. From my perspective the meeting had a dual value. I understood that following on this meeting we would share information and that after giving the Netherlands authorities a month to offer any comment with the Côte d’Ivoire authorities given an identical opportunity, he intended to publish his Report on the internet in late May or early June. In the event there was never any sharing of information and his Report was published in or about August 2009 and endorsed by the Human Rights Committee of the United Nations in the autumn.

I cannot conceal that all this has been unsatisfactory and unhelpful to me. I cannot proceed by way of concession or assumption. I can only proceed on the basis of a calm forensic analysis of the evidence.

At one point I had been possibly exaggeratedly optimistic that the appointment of Professor Ibeanu would resolve all the uncertainties and contradictions. It is not a fault to be laid at his door that even after his Report question marks still remain.

I had been troubled that any observation I offered prior to the conclusion of proceedings either criminal or civil might amount to a contempt of court or the deprivation of that fundamental right to a fair trial. Professor Ibeanu has been both more sure-footed and self-confident than I was. In paragraph 11 of his Report he states: “The Special Rapporteur wishes to stress that the purpose of the visits was not to make inferences on the question of alleged liability of relevant stakeholders under criminal and civil law.”

I understood my remit to be to discover whether there were victims dead or damaged and what their precise numbers were. The threat of possible prejudice was a real one and I am not so self-assured as Professor Ibeanu.

As at January 2010 the courts seem to have accepted that nothing on which he concluded was materially prejudicial. It remains to be seen whether individual litigants in criminal proceedings take the same view. For example, I have been made aware that an individual employed by Trafigura wrote to Professor Ibeanu worried on this point. It is to be hoped that Professor Ibeanu is right but if he is not right, it could possibly lead to appeals under European Human Rights legislation and the spectre of proceedings, possibly in Strasbourg, still going on and prolonging the case for another five years.

As I sought to analyse the voyage of the Probo Koala, it had seemed to me material that the ship first called at Lagos on a pre-planned commercial voyage and that the Master on two occasions declined to allow the slops to be removed. He appears to have done so for two reasons. He was concerned about what would happen to the slops following any discharge in Lagos and whether they would be handled appropriately and this was reinforced by the type of vessel which one of the potential recipients of the slops was proposing to use. Slops contain varying amounts of usable hydrocarbons and a skilled refiner can extract that clearly valuable commodity.

Making no claim to be an expert on Nigerian Law, it is my understanding that the import of hydrocarbons into Nigeria without licence is not permitted and for that reason even if the hydrocarbons were within ‘slops’ the Master declined to allow any discharge. If Tragifura had wanted to dump the slops they had ample opportunity in Lagos but the companies that offered to dispose of them were rejected and it is clear from recorded information that it was only on the return voyage to Paldiski that calling at Abidjan became a consideration.

Professor Ibeanu certainly refers to a cargo bound for Lagos (see Para.25) but I doubt if a reader of his Report would have understood that the Probo Koala actually voyaged there before sailing north to Abidjan. It is quite possible that the Professor did not share my assessment of the materiality of the anchorage at Lagos but for what it is worth, that

remains my view and it appears to me that it sheds an important light on the state of mind of the Master of the ship and his concerns that the slops be handled appropriately.

I have a great respect for the learned Professor but notwithstanding our common interest in this issue our remits were not identical and that needs to be recognised. As I see it, his remit proceeded on the basis that there had been dumping while I had to explore whether that was so. Furthermore, on more than one occasion he suggests a reparation without asserting a legal liability. For example, almost all his recommendations to the Netherlands, Côte d'Ivoire and Trafigura are the steps that should be taken next, not the steps that in law were not taken.

For my part, particularly after my attendance at the Marseilles Conference, I have become increasingly convinced that there is an unacceptable degree of subjectivity in the provision of adequate port reception services. The Marpol Convention works well in ensuring, as in the case of the Probo Koala, that slops and wastes generated at sea are brought ashore rather than being disposed of at sea (except in the few permitted circumstances) but this requires member states both to provide adequate reception facilities and to ensure that materials discharged ashore are subsequently handled correctly.

It is the importance of this latter point, the post discharge handling, that has been revealed to me graphically in the course of this Inquiry. I am not urging a dull uniformity on member states of the Marpol Convention but it is clear that vessel operators need to be able to rely with greater certainty on those states providing adequate facilities for both the discharge and the subsequent handling of slops and wastes. This should cover all the types of vessels regularly using those ports and the types of slops and wastes that the Convention will require them to discharge there. Whilst all ports should be equipped to accept discharges of all relevant types of slops and wastes from the vessels that regularly use them, it is not necessarily the case that the ports themselves must be capable of undertaking the processing of all types of such materials. In many cases such facilities are in any case not part of the port infrastructure. The Netherlands is a classic example. Amsterdam can accept a wide variety of slops and wastes on discharge in port but cannot process everything that it handles; however Rotterdam has more facilities including an incineration capability and can therefore deal with a far wider variety of materials. This seems to be a perfectly adequate approach.

No nation should be put in a straitjacket but an ever wider set of countries should provide facilities capable of dealing with the slops and wastes of the vessels regularly using their ports as set by objective international standards determined by the Marpol Convention. However, in addition, it is my clear recommendation that all Marpol states should be required to ensure that post reception there are adequate facilities available somewhere, not necessarily at every port and not necessarily even in the ports, for the safe processing and/or disposal of slops and wastes regularly discharged there.

If Trafigura and Leigh Day were to accept this recommendation both, I believe, would bask in a reflected glory. It is, however, entirely a matter for them.

It appears to me that the IMO is more influential than it gives itself credit for and in the years beyond 2010 its assessment of what is required globally will carry great weight. Of course it is essentially a “Secretariat” but it fails if it does not recognise its own internal expertise. I would look to the IMO, along with other such organisations, to support the Marpol states in achieving the necessary standards and facilities.

MS DE LA FAYETTE

Ms Louise de La Fayette died in late 2009. She was visiting Professor at Greenwich University, a Canadian and the world expert on the dumping of waste at sea. Her opinion, which I urged her to have published within a learned journal, was not done in her lifetime and I have taken the liberty with her prior approval and that of the publishers of including it in this further Interim Report as Appendix 1 to the Report and her valuable contribution to the Marseilles Conference as Appendix 2. In fact what is in Appendix 2 is not quite what she said but she was hurried for time and the marginally expanded narrative received her approval.

What she writes warrants very careful analysis and I would have to say that I have little or no criticism of her legal probing. I regarded her as an academic of distinction, expert in her field but short with those claiming knowledge and having none.

I am hesitant to single out bits of her opinion. That is potentially open to distortion but it seems to me that her conclusions are spot on and justified by her earlier text and argument.

I respectfully agree with the late, Ms de La Fayette

Appendix 1: Environmental Policy and Law, 39/4-5 (2009). Louise Angélique de La Fayette, ***The Sound Management of Wastes Generated at Sea*** – MARPOL, not Basel. Pages 207-214, © 2009 with permission IOS Press

Appendix 2: ***Regulatory Perspectives and Experience***, addressed by Louise de La Fayette, Visiting Professor, Maritime Institute, University of Greenwich, UK, at the International Conference On The Environmentally Sound Management of Waste Generated at Sea, 24-26 November 2008, Marseilles, France.

CLOSING THOUGHTS

I should emphasise that I played no part in the securing of so-called “super-injunctions” against “The Guardian” newspaper and by extension to Members of Parliament. That was not and is not any part of my function. The actions of Chelsea footballer John Terry brought the issue back into the public domain and it seems that every time such legal action is mentioned, reference is made to Trafigura. I am shocked that I should in any way be associated with this. Whilst I am an honorary member of the English Bar I have never appeared for Trafigura, nor for that matter anyone else, in court proceedings in England. In fact I have not appeared for anyone in a Scottish Court, the ECJ or Strasbourg Court other than for the Government of the day since 1982. It appears to me to be an irrelevant distraction from my main task.

The “Guardian” newspaper also seemed to conclude I was seeking to conceal the fact I was being paid for my work on this Inquiry. That is a travesty of the truth. I never sought any concealment with journalists and the only issue was whether two payments over nearly three years amounted to regular remuneration as the House of Lords’ Register provides for. I am not concerned about this. These payments would seem classically irregular but *ob majorem cautelam* I have declared receipt of both. The Privileges Committee of the House of Lords have subsequently vindicated my position.*

I regret also that other legal proceedings both criminal and civil have extended longer than first envisaged. I regret that with the passage of time I am not convinced that there is much political will in Côte d’Ivoire or elsewhere to reach a calm, forensic assessment of what actually occurred and where any liability lies. This is not a Final Report but I am becoming increasingly doubtful if the Government in Côte d’Ivoire or the media in the United Kingdom want a forensic answer.

In the autumn of 2009 lawyers acting for Trafigura reached a settlement with those lawyers acting for the plaintiffs. Whilst in some people’s eyes that might point to where liability lay, anyone with long experience in the law would know that this is not necessarily so. Certainly counsel might have advised that there was no proper defence to be mounted although the statement of settlement in this case put before the court does not unequivocally point in that direction. There was to be an extended trial and the costs could have been horrendous. How much of a consideration that was, I do not know but both sides had distinguished, and I presume, expensive legal teams. Furthermore it is not unknown for a variety of reasons, including business ones, that parties settle to take the heat out the situation. I was not privy to or involved in the settlement of the civil proceedings nor the discussions leading to it as both Macfarlanes and Leigh Day can confirm and without breaching that duty of confidentiality both owe to their clients I cannot enquire. There are, of course, publicly available court documents previously referred to.

* Committee for Privileges, House of Lords, 1st Report of Sessions 2009-10. HL Paper 69.

From my perspective the situation is not particularly satisfactory although I can readily enough understand that on one basis or another settlement was reached. I would not be averse to signing off now but with criminal proceedings still pending in the Netherlands that might seem premature. I am bound to report that even if those criminal proceedings are concluded this year there remains the possibility of appeals within the Netherlands and possibly even to Strasbourg as I have previously referred to and therefore it would not be unreasonable to suggest that it could last for a further five years and by then a further Final Report may serve little or no purpose.

Lord Fraser of Carmyllie PC QC
House of Lords
www.probokolainquiry.com

March 2010

APPENDIX 1 (1)

ENVIRONMENTAL POLICY AND LAW, 39/4–5 (2009)

207

Regarding elephants, the one-off sale of government-owned raw ivory from four African nations in 2008, specifically allowed by a COP-14 decision, and progress towards developing an African elephant action plan and African elephant fund were portrayed as successes in the management of this species. Reports of large-scale seizures of illegally traded ivory, however, as well as proposals from some African countries for downlisting African elephants, and a planned study on developing a decision-making mechanism for possible future authorisation of ivory trade, appear to ensure that the subject of elephants will remain contentious.

Future Prospects

COP-15 in Qatar will have a full agenda, as usual, with hundreds of listing proposals and other calls for information on species that proponents believe require attention. At the time of writing, the deadline for the presentation of proposals has not passed; however, it is already clear that Monaco's proposal to list Bluefin tuna will be particularly important and controversial. It will be the first proposal for a large fishery to enter directly into Appendix I of CITES (without passing through a prior stop at a less restrictive Appendix II listing). The European Union has recently decided to back the proposal, presumably lighting warning signs at the FAO in Rome. This will likely bring a whole new breed of delegates to CITES.

If Bluefin tuna enters CITES Appendix I, the Convention will need a strong leadership to ensure it delivers results, and does not place its longstanding reputation as an effective global convention at risk.

In this regard, UN Secretary General Ban Ki-moon is expected to name the new Secretary General of CITES next year. The new incumbent will face serious challenges, in

guiding CITES's evolution to extend its coverage to the sensitive fishery and timber trade. The Standing Committee specifically noted its intention to be more involved in the selection process.

Notes

- 1 Associated Press, 16 January 2008, "Qatar suspends ties with Israel".
- 2 Resolution Conf. 11.1 (Rev. COP14) Annex 1.
- 3 Although there is no specific statement of this exception, it is generally agreed that international agreements controlling movement of substances or species for environmental purposes constitute an exception. The WTO's own website states this assumption as follows: "Bright, the WTO's committee notes the basic WTO principles of non-discrimination and transparency do not conflict with trade measures needed to protect the environment, including actions taken under the environmental agreements. It also notes that clauses in the agreements on goods, services and intellectual property allow governments to give priority to their domestic environmental policies. The WTO's committee says the most effective way to deal with international environmental problems is through the environmental agreements. It says this approach complements the WTO's work in seeking internationally agreed solutions for trade problems. In other words, using the provisions of an international environmental agreement is better than one country trying on its own to change other countries' environmental policies." The number of exceptions to and limitations on this presumed environmental exception are legend, and discussed in many contexts. (See, e.g., the shrimp-turtle and dolphin-tuna cases, documented in the WTO website at <http://www.wto.org>).
- 4 SC-58, Sum. 3 (Rev. 1) (07/07/2009).
- 5 Garcia, E., Hajjar, R. and M.A. Morera, 2009. Summary of the 58th Meeting of the CITES Standing Committee. *Earth Negotiations Bulletin*, HSID, <http://www.hs-nl.ca/ebn/58>.
- 6 SC-58 Sum. 3 (Rev. 1) (07/07/2009).
- 7 *Calappa* spp., *Furcifer* spp., except *F. lateralis*, *F. oustaleti*, *F. pardalis* and *F. variegatus*, and *Phelsuma* spp., except *P. karlmanni*, *P. nana*, *P. madagascariensis* and *P. quadriocellata*.
- 8 SC-58 Doc.21.3 (Rev. 1).
- 9 Annex 2a, paragraph B of Res. Conf. 9.24 (Rev. COP14).
- 10 Ibid., Annex 2 a.
- 11 SC-58 Conf. 2.
- 12 See note 5.
- 13 Ibid., SC-58 Inf.10; TRAFFIC, 2008. Poaching crisis as rhino horn demand booms in Asia, <http://www.traffic.org/home/2008/7/poaching-crisis-as-rhino-horn-demand-booms-in-asia.html>.
- 14 SC-58 Doc.37.

IMO

The Sound Management of Wastes Generated at Sea

– MARPOL, not Basel –

by Louise Angélique de La Fayette*

Introduction

Over the past two or three years, a number of articles have appeared commenting on the *Probo Koala* affair, including an article and a document in the present journal.¹ While most of these articles have simply assumed that the affair fell within the scope of the Basel Convention,² some have recognised that MARPOL³ might also be applicable.⁴ However, those mentioning MARPOL do not seem to be familiar with its objectives and function-

ing, and do not appear to realise that the two conventions are mutually exclusive.⁵ The purpose of this article is to elucidate the waste management functions of MARPOL and to distinguish its operation and scope from that of the Basel Convention.

The relative lack of familiarity with MARPOL is not surprising, as some environmental lawyers mistakenly believe that all instruments adopted by the International Maritime Organization (IMO) belong to the field of maritime or shipping law, which appears to be divorced from international environmental law and from international law in general. Nothing could be further from the truth. As this author has endeavoured to explain in previous

* Visiting Professor, Maritime Institute, University of Greenwich and Adviser on International Law and Policy for the Advisory Committee on Protection of the Sea (ACOPS); formerly a Director in the United Nations Division for Ocean Affairs and the Law of the Sea, Marine Policy Adviser for IUCN, and a legal adviser in the Canadian Department of Foreign Affairs.

APPENDIX 1 (2)

208

ENVIRONMENTAL POLICY AND LAW, 39/4–5 (2009)

articles and reports, IMO has made a substantial contribution to the development of both the law of the sea and international environmental law. The work of the Marine Environment Protection Committee (MEPC) lies within the conjunction of the two areas of law,⁶ developing and continually improving, expanding and updating several global conventions and non-binding instruments.

A considerable number of IMO instruments contribute directly to the protection of the marine environment from international shipping activities, therefore falling within the ambit of international environmental law. The oldest and most comprehensive IMO instrument for the protection of the marine environment is MARPOL, which aims to prevent both accidental and operational pollution, and which provides for the environmentally sound management and disposal of wastes generated on board ships at sea.

The Global Framework for the Environmentally Sound Management of Wastes

Say "hazardous waste" to an environmental lawyer, and she will automatically think "Basel Convention". Yet, there are three global conventions for the environmentally sound management of wastes, as well as a number of regional ones.⁷ The three global conventions addressing the environmentally sound management and disposal of hazardous waste are, in chronological order:

1. The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (**London (Dumping) Convention**) and its 1996 Protocol;⁸
2. The International Convention for the Prevention of Pollution from Ships (**MARPOL**), adopted in 1973, as modified by the Protocol adopted in 1978; and
3. The **Basel Convention** on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention), adopted in 1989.

Understanding the differences between them is important, as there seems to be some confusion as to the scope of each convention. As noted above, the confusion arises because the Basel and London Conventions are known as environmental agreements and are familiar to environmentalists, whereas MARPOL is considered to be a shipping convention. In addition, most people think of MARPOL in relation to the prevention of accidents, such as the *Erika* and *Prestige* disasters, through the requirement of double hulls for tankers. However, MARPOL also deals with operational pollution, limiting routine discharges into the sea and requiring many types of wastes to be discharged into port reception facilities.

All three conventions have as their objective the protection of human health and the environment from the adverse effects of "hazardous wastes" or "harmful substances", the term used in MARPOL. Although they all regulate the disposal of harmful, hazardous or toxic wastes, they deal with different aspects of the problem. In particular, the Basel and the London Conventions deal with wastes carried as *cargo*, whereas MARPOL deals with wastes generated on board ships at sea.

The London Convention 1972 and its 1996 Protocol control the disposal of hazardous wastes generated on land and taken on board a ship in order to be dumped at sea. In other words, a *cargo* of waste is loaded onto a ship in port and taken out to sea for the specific purpose of being "dumped" into the ocean. Wastes must be considered for reuse, recycling or disposal on land, before being proposed for dumping at sea. Almost all dumping into the sea is now prohibited. The few materials that are eligible to be dumped are subject to a prior environmental impact assessment and a permit. The export of wastes for the purpose of ocean dumping is prohibited. Unauthorised dumping is illegal.⁹

The Basel Convention (see page 188) controls the export of hazardous waste originating on land in one State and shipped to a second State for recovery or disposal. A shipment from one State to another is termed a "transboundary movement". At least two States must be involved. The Basel Convention discourages transboundary movements and requires wastes to be disposed of close to their place of generation, if this can be done in an environmentally sound manner. If transboundary movements are permissible, wastes will generally be shipped on land, but in many cases, wastes may be shipped by sea. In the latter case, a *cargo* of waste is loaded onto a ship in a port in one State and transported by sea to a port in another State, where it will be taken to a facility for recovery or disposal.

Such a shipment of wastes is subject to a special procedure of prior notification and consent, whereby the exporter must notify the State of destination and any transit States of the contents of the waste and its wish to export for the purpose of disposal. Both the State of import and any transit States must give their express consent before the waste may be shipped. Both the State of export and the State of import must be satisfied that the waste will be disposed of in an environmentally sound manner, before they authorise the transboundary movement. Unauthorised shipments are illegal.

MARPOL applies to hazardous wastes generated at sea on board ships, requiring them to be managed and disposed of in an environmentally sound manner, in order to prevent the pollution of the sea and harm to human health. Only limited amounts of wastes may be discharged into the sea; most must be discharged in ports.

Thus, both the London Convention and the Basel Convention apply only to wastes *originating on land* and shipped as *cargo* for the purpose of disposal away from their place of generation. In the case of the London Convention, the waste is dumped at sea, while in the case of the Basel Convention, the waste is taken to a port in another State for disposal on land.

Neither the London Convention, nor the Basel Convention apply to wastes generated on board ships. Wastes generated on board ships are covered by MARPOL and are specifically excluded from the scope of both the London Convention and the Basel Convention.¹⁰ The balance of this article will focus on the differences between Basel

APPENDIX 1 (3)

ENVIRONMENTAL POLICY AND LAW, 39/4–5 (2009)

209

and MARPOL, as these have been the cause of most confusion.

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention)

The Basel Convention was adopted in 1989 under the auspices of the United Nations Environment Programme (UNEP) in response to a number of incidents involving the dumping of hazardous European wastes in Africa. The Convention is designed to control the transboundary movement of hazardous wastes and to ensure its environmentally sound disposal. The underlying objective is to protect:

human health and the environment against the adverse effects that may result from the generation and management of hazardous wastes and other wastes.

The main principles of the Basel Convention are:

- Minimisation of the generation of hazardous wastes;
- Disposal of wastes as close as possible to their source of generation;
- Minimisation of transboundary movements, in order to prevent damage to human health and the environment during transport and disposal in a foreign country with no connection to the wastes;



Courtesy: EPA

- Strict control over exports of hazardous wastes through a prior informed consent procedure that informs States of destination and of transit of the contents of the wastes and their proposed export, and provides them with an opportunity to refuse the import; and
- Environmentally sound management and final disposal of wastes.

The essential requirements for inclusion within the scope of the Basel Convention are: 1) that a substance be a "waste", 2) that it be a hazardous or "other waste", and 3) that it be subject to a transboundary movement. Article 2 defines "wastes" 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.

It defines "transboundary movement" as meaning:

any movement of hazardous wastes or other wastes

from an area under the national jurisdiction of one State to or through an area under the national jurisdiction of another State or to or through an area not under the national jurisdiction of any State, provided at least two States are involved in the movement.

Finally, "area under the national jurisdiction of a State" is defined to mean:

any land, marine area or airspace within which a State exercises administrative and regulatory responsibility in accordance with international law in regard to the protection of human health or the environment.

Significantly, the Basel Convention excludes from its scope:

Wastes which derive from the normal operations of a ship, the discharge of which is covered by another instrument (Article 1 (4)).

This exclusion, proposed by IMO, is understood to exclude wastes generated at sea because they are covered by MARPOL.¹¹ While Basel was to cover wastes shipped as cargo, the waste management provisions of MARPOL already covered wastes generated on board ships. That was the distinction, not any esoteric definition of "normality", which must be interpreted in context. Not only does MARPOL itself provide for the environmentally sound management and disposal of wastes generated at sea, but also, for practical reasons outlined below, Basel cannot be applied to them.

The Conference of the Parties to the Basel Convention (COP), which meets at least once every two years, is the principal organ of the Convention. The parties to the Basel Convention have established a complete system of control for transboundary movements of hazardous wastes. An amendment to the Basel Convention prohibiting exports of hazardous wastes from developed to developing countries was adopted in 1995 (the Ban Amendment), but has not yet entered into force.¹² The COP has adopted policies for the implementation of the Convention, a number of Guidelines for the environmentally sound management (ESM) of specific wastes, amendments to the Convention and its annexes, and a Protocol on Liability and Compensation (not in force). In recent years, the parties have focused on promoting environmentally sound disposal, adopting a series of guidelines for the disposal of specific wastes, and assisting developing countries to develop national waste management systems through regional centres.

The International Convention for the Prevention of Pollution from Ships (MARPOL)

The purpose of MARPOL is to protect human health and the marine environment from harmful substances discharged into the sea by ships from both operational and accidental causes. The disposal of wastes generated on board ships and cargo residues into the sea is strictly limited and in some cases prohibited. Ships must discharge such wastes into appropriate port reception facilities, while States parties must provide the facilities in port to receive them. ■■

APPENDIX 1 (4)

210

ENVIRONMENTAL POLICY AND LAW, 39/4-5 (2009)

MARPOL controls the discharge of harmful substances or effluents containing such substances and requires States to impose penalties for discharges in contravention of the Convention. Article 2 defines "harmful substance" and "discharge" as follows:

(2) "Harmful substance" means any substance which, if released into the sea, is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea, and includes any substance subject to control by the present Convention.

(3)(a) "Discharge", in relation to harmful substances or effluents containing such substances, means any release howsoever caused from a ship and includes any escape, disposal, spilling, leaking, pumping, emitting or emptying...

MARPOL has six annexes addressing the various sources of pollution. From its inception, MARPOL covered pollution by oil in Annex I and pollution by noxious liquid substances in bulk in Annex II, both of which are compulsory. MARPOL is a "living document" that has been revised many times since adoption, in particular to reflect new legal principles calling for more stringent requirements, as well as technical innovations that facilitate greater protection of the marine environment. Those six technical Annexes are:

- Annex I Regulations for the Prevention of Pollution by Oil
- Annex II Regulations for the Prevention of Pollution by Noxious Liquid Substances in Bulk
- Annex III Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form
- Annex IV Prevention of Pollution by Sewage from Ships
- Annex V Prevention of Pollution by Garbage from Ships
- Annex VI Prevention of Air Pollution from Ships

The provisions of MARPOL relating to accidental pollution include requirements for ship construction and equipment, as well as for emergency plans. The provisions regarding the prevention of operational pollution concern the management and discharge of wastes produced on the ship.

Operational pollution regulated by Annexes I and II results from the operations of vessels at sea, comprising the discharge of oils and other hazardous substances used in the ship's machinery and equipment, as well as cargo residues, chemicals and waste water produced by cleaning of the tanks. Such wastes and water containing cargo residues, referred to by ship operators as "slops", are pumped into holding tanks, termed "slop tanks", pending discharge into the sea or into port reception facilities, according to the regulations. Air pollution results from the normal operations of the ship, especially emissions from ships' engines. The ship's crew and any passengers will produce sewage and garbage on a daily basis.

Wastes produced from the operations of a ship may only be discharged into the sea in very small quantities

and under very strict conditions. Substances that may be harmful to human health and to the marine environment may not be released into the sea, but must instead be discharged into port reception facilities.

Special Areas

MARPOL designates certain sea areas as "special areas" in which the discharge of certain types of hazardous wastes from ships is either strictly limited or prohibited, for technical reasons relating to their oceanographical and ecological condition and the amount of maritime traffic. There are special areas under Annexes I, II and V. Annex VI establishes certain SO_x (sulphur oxide) Emission Control Areas (SECAs) with more stringent controls on sulphur emissions. In special areas under Annex I (oil), no oily wastes may be discharged into the sea; they must be discharged into port reception facilities. These Special Areas are:

- Mediterranean Sea
- Baltic Sea
- Black Sea
- Red Sea
- "Gulfs" Area
- Gulf of Aden
- Antarctic Area
- North West European Waters
- Oman Area of the Arabian Sea
- Southern South African Waters

Under Annex II, no noxious liquid substances may be discharged into the sea around Antarctica. A new version of Annex VI has just been adopted, which will allow for emission control areas for three types of emissions. Annex V is under review.

Types of Wastes to Be Discharged

Under Annex I, six categories of wastes are envisaged as requiring disposal in port reception facilities. These include:

1. oily bilge water;
2. oily residues (sludge);
3. oily tank washings (slops), which are pumped into slop tanks for disposal in port reception facilities;
4. dirty ballast water;
5. scale and sludge from tanker cleaning; and
6. oily mixtures containing chemicals, which arise either from cleaning of engine room machinery and spaces or from washing tanks for oil or for products with water mixed with chemicals.

The first two categories of wastes arise from engine room operations on all ships and are not related to cargo residues. Wastes in categories 3, 4 and 5 arise from cargo spaces of oil and product tankers. Dirty ballast water is quite rare. Oily tank washings are most common. The sixth category includes mixtures from the cleaning of engine room machinery and spaces, or from washing tanks for oil or for products with water mixed with chemical substances. Mixtures of oil and chemicals, including those from cargo tank washings are collected in slop tanks prior to being discharged ashore.¹³

APPENDIX 1 (5)

ENVIRONMENTAL POLICY AND LAW, 39/4-5 (2009)

211

Under Annex II, three categories of wastes containing noxious liquid substances are envisaged as requiring discharge to port reception facilities:

1. washings of tanks containing noxious liquid substances (NLS);
2. cargo residues of NLS; and
3. dirty ballast.¹⁴

The main category of waste under Annex II requiring reception facilities is washings of tanks containing NLS. These washings contain mostly water with very low concentrations of chemicals. The discharge of "other residues and mixtures containing such substances" is also covered in Annex II, but the term is not defined.

To ensure that ships are able to comply with the obligation to discharge their wastes into port reception facilities, MARPOL requires all port States to provide reception facilities for all ships visiting its ports, which offer appropriate means of disposal for the types of wastes produced by the ships normally visiting that port.

Thus, in contrast to both the London and the Basel Conventions, MARPOL deals with wastes generated, not on land, but on board ships at sea. This is a crucial distinction, because wastes generated on board ships cannot, for purely practical reasons, be managed and disposed of in the same way as wastes produced on land. There are three main reasons for this.

Firstly, there are a limited number of options for dealing with wastes generated at sea. On land, there are several options. At sea, there are only two, either:

1. discharge into the sea, or
2. discharge/unloading into port reception facilities.

In many cases, discharge at sea is prohibited because the substances are toxic or hazardous. Hence, discharge into port reception facilities is the only viable option.¹⁵

Secondly, wastes on board a ship can only be held for a limited amount of time before being discharged. On land, wastes in a container can be held for an indeterminate length of time while a decision is taken or arrangements are made for a method or place of disposal, including export to another country. However, tanks containing liquid wastes at sea will eventually fill up and the wastes will have to be discharged either at sea or in a port. The ship cannot carry the waste beyond a certain capacity or a certain length of time. Timing is important because ships operate on very tight schedules and have to be able to discharge their wastes when they are in a port for other reasons, such as to unload a cargo. They cannot go into port as soon as wastes are generated and they cannot hold the wastes indefinitely.

Thirdly, ships keep moving. Ships engaged in international trade are constantly engaged in transboundary movements. They may travel from a port in one country to a port in another country hundreds or thousands of miles away, and they may travel between continents in different parts of the globe. For ships, transboundary movements are not the exception, they are the rule. Furthermore, although some ships can plan their voyages months in advance, others may have to change their destinations during the

voyage if commodities they are carrying are traded while they are at sea. Therefore, suitable port reception facilities have to be available anywhere in the world that ships are likely to trade.

For all these reasons, ships must have access to port reception facilities in which to discharge their wastes in every port and every country they chose to visit.

Ships' operators are responsible for the management of wastes on board their vessels, including the proper operation of equipment and provision of tanks for slops, sludge and oily bilge water. They are also responsible for compliance with the regulations limiting discharges into the sea and requiring discharge into port reception facilities of certain types of wastes and residues.

Port States are responsible for ensuring that adequate port reception facilities are available to ships calling at ports within the port State's jurisdiction. Port States must ensure the provision of waste reception facilities that are adequate and capable of handling the discharge of wastes from regular port users. Port States should also ensure the provision of proper arrangements to consider and respond appropriately and effectively to reports of inadequacies.

The flag State, the port State and the company operating the ship all play a role and all are responsible for ensuring the safe and environmentally sound disposal of ship-generated wastes.

Port Reception Facilities

MARPOL requires States parties to provide reception facilities in their ports because port reception facilities are absolutely essential for the implementation of the Convention. If reception facilities for ships' wastes are not provided in ports, masters will have no choice but to discharge *all* their wastes into the sea, including those that should be discharged into port reception facilities, which would be illegal and contrary to the environmental purpose of MARPOL.

The obligations on ships' operators and on port States are reciprocal and mutually dependent. Ship operators have a right and an obligation to discharge certain wastes into port reception facilities, while port States have an obligation to provide suitable facilities. Despite these clear legal requirements, some States still do not provide adequate reception facilities for ships visiting their ports.

For many years, IMO has been encouraging States to improve the availability and quality of reception facilities. To this end, IMO adopted three documents:

1. forms for the reporting of inadequacy of port reception facilities;
2. the *Comprehensive Manual on Port Reception Facilities* (1999); and
3. the *Guidelines for ensuring the adequacy of port waste reception facilities* (2000).

Most recently, IMO adopted an Action Plan for Improving Waste Reception Facilities, which is being implemented by a correspondence group established by the Sub-Committee on Flag State Implementation (FSI) (see further below). ■■

APPENDIX 1 (6)

212

ENVIRONMENTAL POLICY AND LAW, 39/4–5 (2009)

Reasons for the Exclusion of Ships' Wastes from the Basel Convention

There are three main reasons for the exclusion of ships' wastes from the scope of the Basel Convention:

1. three of the basic principles of Basel are not applicable;
2. the legal obligations in MARPOL and Basel are not only different, they are reversed and mutually incompatible; and
3. the Basel requirements cannot be applied for practical reasons.

In addition, the application of the Basel Convention is not necessary to ensure the environmentally sound disposal of ships' wastes, as MARPOL itself ensures the environmentally sound management of wastes until they are accepted into a port reception facility. Thereafter, the wastes enter the national waste stream, national law applies and a national waste management system should ensure the environmentally sound disposal of all wastes, including ships' wastes.

Basic Principles: Minimisation of Transboundary Movements, Disposal Close to the Place of Generation, and Assurance of Environmentally Sound Disposal

Three main basic principles of the Basel Convention cannot be applied to wastes generated at sea. First, the Basel principle of the minimisation of transboundary movements of wastes is not applicable to ships because the entire purpose of international shipping is to transport cargo from one country to another. The increase in international trade means more transboundary movements are required every year. Transboundary movements are the essence of international shipping, whose purpose is to transport specific cargoes from a seller in one country to a buyer in another. Wastes are produced in the course of these necessary voyages. The wastes may be minimised, but cannot be avoided and must be carried on board the ships from areas under the jurisdiction of one State to areas under the jurisdiction of another, until a convenient time and place for discharge.

Secondly, the Basel principle of disposing of wastes close to their place of generation is also not applicable to ships' wastes, because ships are constantly navigating across the oceans and wastes may be generated at sea in a number of locations or even daily throughout the voyage from the constant operation of engines and machinery, or the life of the crew. Cargo tanks may be washed at sea, with the waste kept in slop tanks. Since it is not possible to go into port every day, the only way to dispose of wastes close to their place of generation would be to discharge them into the sea, which would be contrary to MARPOL, to the legal obligation to protect the marine environment and to the principle of environmentally sound management of wastes. Therefore, the wastes must be kept on board until a convenient time and place for discharge.

Thirdly, the master or the ship's operator cannot know in advance whether the wastes will eventually be disposed of in an environmentally sound manner. They should know whether the port has facilities to remove the wastes from the ship, but they cannot know the eventual fate of

the wastes. With ships constantly on the move, here today and gone tomorrow, it would be impossible for them to track the eventual fate of wastes in each and every port. Therefore, the Basel requirement that the generator or exporter ensure in advance that the wastes will be disposed of in an environmentally sound manner cannot apply. In fact this requirement does not fit into the entire schema of the discharge of ships' wastes. Under Basel, transboundary movements of wastes are intended to be infrequent occurrences and, indeed, are only permitted where the wastes cannot be treated in an environmentally sound manner in the country of generation. With ships, however, transboundary movements are the norm. Consequently, MARPOL requires port States to provide adequate port reception facilities and gives ships' operators a right to discharge the wastes at a port of their choice. The legal requirements of MARPOL cease once the wastes have been accepted into the port reception facility. Thereafter it is the responsibility of the port State under national law, regional law or the Basel Convention to manage the wastes in an environmentally sound manner.

Because transboundary movements are essential to international shipping, because ships' wastes cannot be disposed of close to their place of generation, and because constantly moving ships cannot know the eventual fate of their wastes, these Basel Convention basic principles cannot be applied to wastes generated on board ships.

Notification and Consent

The legal rights and obligations in Basel and MARPOL are completely different. Under the Basel Convention, exporters of wastes have to notify a request for a transboundary shipment to the States of transit and disposal, ensure that the waste will be disposed of in an environmentally sound manner, and obtain the consent of the country of destination, as well as of the transit countries, before obtaining permission from the exporting State for the export. Thus, the exporter has no right to export and the State of intended disposal has a right to refuse consent. Transboundary movements for disposal of wastes outside the State of origin are the exception, not the rule.

In contrast, for ships engaged in international trade, transboundary movements are the rule. Since these ships are constantly moving great distances around the world, if they are to avoid discharging their waste into the sea, they must be able to discharge the wastes generated on board the ship into any port that such ships regularly visit.

Hence, MARPOL places a legal obligation upon all States parties to provide adequate reception facilities for the types of ships usually using the port. Ships have a right to discharge their wastes in port and port States have a legal obligation to provide appropriate facilities. They cannot refuse. Under MARPOL, ships do not even have to notify their intention to dispose of wastes.¹⁶ Thus, responsibilities under MARPOL are the exact opposite of those under Basel. The reasons for this difference are practical.

Practical Considerations

It should be clear from the preceding paragraphs that there are practical reasons for the exclusion of ships'

APPENDIX 1 (7)

ENVIRONMENTAL POLICY AND LAW, 39/4–5 (2009)

213

wastes from the ambit of the Basel Convention. Ships are constantly engaged in transboundary movements. In most cases, they have no real "home" port,¹³ and they have to be able to discharge their wastes where it is convenient and where they unload their cargo. The only alternative would be to discharge *off* their wastes into the sea, which would be illegal and environmentally unsound, to say the least.

Strictly applied, the Basel notification and consent procedure would not work. If a ship had to request consent from the State of disposal and all the transit States, it could take at least several weeks, or even months, to receive the replies, and by then, the slop tanks could be overflowing. If the intended port of disposal or a transit State refused consent, the wastes would have to be discharged into the sea. The situation would be even worse for ships carrying oil traded on the spot market, as they might have to change their destination at any time and would have even less time to notify a port and any transit States and to obtain their consent.

Thus, the Basel Convention excludes from its scope wastes generated on board a ship, because the only practical way of disposing of such wastes is to discharge them into a port reception facility at a time and place convenient for the ship, usually when the slop tanks are full and where the ship is unloading its cargo. Because of the time factors involved, it is not practical to apply the notification and consent procedure to wastes generated on board ships.

Environmentally Sound Management

Lastly, the application of the Basel Convention is not necessary to ensure that ships' wastes are handled in an environmentally sound manner. The provisions of MARPOL are intended to ensure that such wastes are handled in an environmentally sound manner. MARPOL aims to ensure the Environmentally Sound Management (ESM) of wastes generated on board a ship, just as Basel aims to ensure the ESM of wastes originating on land and shipped to another country for disposal.

The MEPC has issues relating to ships' wastes permanently on its agenda and is actively seeking solutions, both to ESM on board ships at sea and to the problem of inadequate port reception facilities. Environmentally Sound Management of shipping operations is the main goal of MARPOL. All its provisions are designed to achieve that goal. For example, MARPOL contains special requirements for the provision of slop tanks and tanks to hold sludge and bilge water, and for environmental equipment such as oily water separators and discharge monitoring equipment. In addition, all operations relating to wastes must be noted in record books. Enforcement is carried out in port by surveyors acting for the flag State, and by inspectors under port State control.

Over the years, the parties to MARPOL have been enhancing the protection of the marine environment by a series of almost annual amendments, which actually do enter into force. The most recent amendments to Annexes I and II considerably increase environmental protection and considerably decrease the amount of hazardous wastes produced and discharged by ships. For example,

the requirements in the revised Annex II for stripping and cleaning tanks after the unloading of cargo are now so strict, that it was considered to be unnecessary to provide for the designation of Special Areas under the new Annex II (except Antarctica).¹⁶

Furthermore, in view of the inadequacy or even lack of port reception facilities in many ports, MEPC is implementing an Action Plan for Improving Waste Reception Facilities under the Sub-Committee for Flag State Implementation (FSI).¹⁷ A Correspondence Group is currently working on the implementation of the Plan.¹⁸ The Group has already developed and recommended standard forms for the advance notification to ports of wastes to be discharged and for the receipt of wastes. These forms were formally approved for circulation at MEPC 58.¹⁹ It has also developed a "Guide to Good Practice for Port Reception Facility Providers and Users", which underlines the need for the environmentally sound management and disposal of ships' wastes. The Guide was approved by MEPC 59 in July 2009 and has been issued as MEPC.1/Circ.671.²⁰

In this context, IMO, pressed by the shipping industry, has recognised the need to provide better information to ships' operators about the facilities available in all ports; for advance notification by ships of waste delivery to ports; and for voyage planning, so that ships which can do so, will plan and arrange the disposal of their wastes some time before arrival in ports. An IMO database containing information about port reception facilities is already operational, as a module of the Global Integrated Shipping Information System.²¹

In addition, IMO has recognised the need for technical assistance to help developing countries improve their port reception facilities. The Correspondence Group on Port Reception Facilities is considering a document on assistance to developing countries. Although this is not legally relevant under MARPOL, IMO members are aware of the lack or inadequacy of general waste disposal systems in some countries and are concerned that ships' wastes may not be properly disposed of.

Unfortunately, even where port facilities are adequate, there often remains a problem after ships' wastes are discharged in port, due to inadequate disposal facilities on land for all kinds of waste. Many developing countries (and even some developed countries) do not have well-functioning general waste management and disposal systems. Such systems are necessary for wastes coming from all sources, including both national wastes from land-based sources and ships' wastes. After ships' wastes are accepted into the port reception facility, they become part of the national waste stream and must be treated along with wastes generated entirely within that country.

IMO members have recognised that the environmentally sound management of wastes on land is a problem in some countries and have recommended capacity building by UNEP as a solution.

The Correspondence Group on Port Reception Facilities has reported on these and other issues to the 17th session of the FSI Sub-Committee held in April 2009. FSI 17 approved the report of the Correspondence Group

APPENDIX 2 (1)

Regulatory Perspectives and Experience

LOUISE DE LA FAYETTE

Visiting Professor, Maritime Institute, University of Greenwich, UK

The purpose of my presentation is to outline the global legal requirements for the environmentally sound management of wastes generated at sea, and to identify some issues not covered by current requirements. The presentation will focus on the gaps and challenges within the system, providing a regulatory perspective on the issue.

As background, you should bear in mind a few simple facts. First, ships operate on the oceans. Second, during their voyages, they generate waste. Third, that waste accumulates on board. Fourth, ships have minimal space to hold their waste. Fifth, eventually the waste will have to be discharged. Sixth, there are only two places in which waste can be discharged: into the sea or into the port. The only environmentally sound solution is obviously at the port level. However, in many ports around the world, reception facilities are either non-existent or inadequate.

Challenges to be addressed

When it comes to dealing with these issues, we face four main challenges.

- First, we have to improve the availability and adequacy of port reception facilities.
- Second, we have to improve the availability and quality of information that is provided about port reception facilities.
- Third, we must ensure that port reception facilities are effectively integrated into the general waste disposal systems of the port state.
- Fourth, we must ensure the environmentally sound management and disposal of ships' waste in the land based general waste management and disposal system of the port state.

APPENDIX 2 (2)

The global rules on the environmentally sound management of wastes generated at sea are contained in the International Convention for the Prevention of Pollution from Ships (1973 as modified by the Protocol of 1978), commonly known as MARPOL. MARPOL is the main IMO convention relating to the protection of the marine environment. It addresses both accidental and operational pollution from ships in six annexes, dealing with:

Annex I. Oil

Annex II. Noxious Liquid Substances

Annex III. Harmful substances carried in packages

Annex IV. Sewage

Annex V. Garbage

Annex VI. Air pollution

Apart from Annex III, all the annexes contain provisions for the environmentally sound management of wastes on board the vessel, and requirements to discharge some wastes and residues into port reception facilities. All states parties are required to provide port reception facilities for ships normally visiting their ports.

Once the wastes are taken off the ship, MARPOL no longer has any formal role to play. Nevertheless, IMO is interested in the fate of the waste because it realises that the environmentally sound management of wastes requires a life cycle approach. Such a life cycle approach must extend from the generation of waste on board the ship; through its discharge either into the sea or into waste reception facilities in port; its transportation to inland waste management systems; and ultimately to reuse, recycling or final disposal. For the process to encompass land-based waste management and disposal, it must be based on co-operation between IMO and the Basel Convention, which deals with waste management on land.

APPENDIX 2 (3)

The Waste Management Conventions

There are three global waste management conventions: the London Dumping Convention (1972) and its London Protocol,¹ MARPOL, and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. All three conventions aim to protect human health and the environment from harm caused by hazardous wastes.

¹ The Protocol supersedes the Convention, which should eventually fall into disuse.

Both the London Convention and the Basel Convention apply to waste that is transported by sea as cargo. They do not apply to waste generated on board ships, which is covered by MARPOL. The Basel Convention controls the export of hazardous waste generated in one state shipped to another state for recovery or disposal. A shipment from one state to another is termed a “transboundary movement”. The Basel Convention discourages transboundary movements and requires wastes to be disposed of close to their place of generation, if possible. In recent years the parties have adopted guidelines on methods of disposal of various kinds of wastes and have engaged in capacity-building in developing countries to assist them in developing environmentally sound waste management systems.

MARPOL recognises that most waste generated at sea is harmful to the marine environment. For this reason, the deliberate discharge of waste from ships into the sea is strictly controlled or, in some cases, even prohibited. Waste generated on board ships cannot be managed in the same way as waste generated on land. On land, there are several options for re-using, recycling or disposing of waste. For wastes generated at sea, there are only two main options: discharge into the sea or into port reception facilities.² Furthermore, as space is limited, waste can only be held on board ships for a limited amount of time. Finally, because ships are engaged in constant transboundary movements between ports, often changing their itinerary along the way, it is necessary to have suitable port reception facilities available anywhere and everywhere that ships are likely to operate.

² In some cases, wastes may be vaporised or incinerated.

For all these reasons, the availability of port reception facilities is essential to the implementation of MARPOL. If such facilities are not available, ships’ operators will be tempted to discharge harmful wastes into the sea, a result that MARPOL was designed to prevent. Under MARPOL, ships’ operators are responsible for the management of waste on board their vessels, and port states are responsible for ensuring that adequate port reception facilities are available to ships that call. The obligations of ship operators and port states are reciprocal and mutually dependent. Despite these clear legal requirements, many states still do not have the necessary port reception facilities.

APPENDIX 2 (4)

In recent years, IMO has adopted a number of measures to improve the provision and adequacy of port reception facilities. In particular, it has adopted guidelines and a manual on port reception facilities; and has designed forms for reporting inadequacies, for ships to report to ports the wastes that they wish to discharge and for waste delivery receipts. In addition, IMO has integrated a Port Reception Facility Database (PRFD) into the IMO Global Integrated Shipping Information System (GISIS) in order to provide information to ships' operators on the facilities available in the ports of member states. Finally, IMO is in the midst of implementing an Action Plan to tackle the inadequacies of some port reception facilities. This Action Plan is being worked on by a Correspondence Group, which is being co-ordinated by Captain Condino, the next speaker (his presentation is included in this appendix).

The IMO port reception facility database is available on the IMO website, and contains basic information that is entered by port states. Unfortunately, the information that has been provided to date is not very comprehensive. It has been recommended that ports create a link on the site to their own waste management plans.

Future measures

Information and communications

One of the main issues is the current lack of information and communication between ships and port reception facilities in some places. The exchange of information and better communications among ship operators, port operators and waste management facilities is crucial to the environmentally sound management of wastes generated at sea. Ship operators need to know which facilities are available at which ports and whether those facilities are adequate to handle the wastes they wish to discharge. The solution suggested by IMO is to provide information about port reception facilities on its GISIS database, and for ships to provide advance notice about the types and volumes of wastes they wish to discharge to port reception facilities.

Ship operators and the operators of port reception facilities should work closely together in order to make the system work. Ship operators should provide timely, advance notice of waste that they want to discharge, while ports should provide information in advance of the facilities available, and of the types and amounts of waste that can be discharged. If ships visit particular ports on a regular basis, it may be useful to enter into standing arrangements with reception facilities in those ports. In general, a more pro-active approach to the exchange of information is desirable.

APPENDIX 2 (5)**Certification**

The certification of port reception facilities has been suggested as the best solution to the problem of obtaining information about port reception facilities. The fact that facilities may be listed in the IMO database does not always mean that in practice they really do provide an adequate, environmentally sound service for the types of wastes and residues sought to be discharged by visiting vessels. This is true even in developed countries. How then is a ship's operator to know with any confidence whether he will be able to safely discharge his ship's wastes in a particular port? One solution is a scheme for certification of port reception facilities. I fully support this idea.

Certification could serve two functions. First, it could raise standards, as operators of port reception facilities would strive to demonstrate their adequacy to potential users by meeting the international standards. Thus, certification could be used as a marketing tool by ports. Secondly, certification would respond to the need for greater certainty and confidence by ships' operators in the adequacy of the port reception facilities actually provided.

How could a certification scheme be established? The IMO Voluntary Member State Audit Scheme could act as a model. The standards are set in the various IMO instruments, which are listed in the Code for Implementation. Member states volunteer to be audited; audit teams visit the country; and investigate whether the Administration is implementing the relevant IMO instruments. Although at present, the scheme is voluntary, in the future it could be made mandatory.

While the requirement to provide port reception facilities is currently included in the IMO Audit Scheme, the audit does not include a detailed investigation of the facilities concerned. What would be required for certification would be: first, technical standards for the construction and operation of such facilities; and second, a detailed expert audit of the facilities, comparing them against the standard. Thirdly, the fact of certification and the details of what facilities are available could be posted on the IMO database.

What aspects of the wastes' life cycle should be included in the certification scheme? Ships are already certified and inspected to ensure that they comply with the requirements of MARPOL. Therefore the scheme should focus on the system and operation of the port reception facilities themselves. In most cases, port reception facilities simply collect waste, which is then taken elsewhere to be entered into the general waste disposal system of that state. Therefore, there has to be a legal and physical link between the port reception facility and the inland infrastructure for waste management and disposal. The existence of such a fully functioning link should be one of the criteria for certification of the port reception facility. The general national waste management system of the state then deals with the waste, but this would be beyond the purview of certification.

APPENDIX 2 (6)**Capacity building and technical assistance**

Another issue is the need to provide assistance to states to improve both their port reception facilities and their general waste disposal systems. The environmentally sound management of ships wastes has to include their environmentally sound management and disposal after they are discharged from the ship. Otherwise, pollution would simply be transferred from the sea to the land. However, as already noted, the management of wastes on land is beyond the scope of MARPOL, whose mandate ceases once the wastes are removed from the ship. This where UNEP and the Basel Convention can help, by adopting guidelines for the management of ships' wastes in inland disposal facilities and by participating in joint projects for capacity building in countries requiring assistance. Such co-operation among IMO, UNEP and the Basel Convention has already begun.

Conclusions

As explained in the preceding paragraphs, MARPOL does not provide all the answers to the issue of the environmentally sound disposal of wastes generated at sea. In particular, it does not ensure that the facilities provided in ports will be adequate to the needs of ships and it does not provide detailed standards for the construction and operation of port reception facilities. Furthermore, MARPOL does not cover the management of the wastes after they leave the ship. The purpose of this conference is to find solutions to resolve these problems.

Ms De La Fayette referred to the 'next speaker' during her presentation and Captain David Condino's contribution is therefore included for information.

The next presentation considered the US response to providing adequate port reception facilities – a response for which the US Coast Guard is responsible.

APPENDIX 2 (7)**The need for adequate port reception facilities****Captain David CONDINO****OCS/MARPOL, Manager, Safety Branch, U.S. Coast Guards**

It is up to individual member states of the IMO to implement requirements with respect to adequate reception facilities. I will be discussing the U.S. response to MARPOL, which has been mandated to the U.S. Coast Guard and which has been implemented in the U.S. Coast Guard Certificate of Adequacy (COA) programme.

The COA programme

The programme implements MARPOL in U.S. regulations and policies. The aim is to develop national guidance for field units and industry that ensures that U.S. ports and terminals meet adequacy criteria through COA certification. The programme monitors the COA application process, reviews all reports of inadequacy, and maintains a public database of port reception facilities, which can be accessed through the IMO's Global International Shipping Information System (GISIS). Finally, it conducts an outreach programme for domestic and international industry groups, end users and port operators.

The U.S. law implementing MARPOL is the Act to Prevent Pollution from Ships (APPS), which confers authority on the U.S. Coast Guard to enforce MARPOL. The U.S. is party to Annexes I, II, III and V of MARPOL, and has recently ratified Annex VI. (The Maritime Pollution Protection Act 2008 amends the APPS to include Annex VI.)

U.S. ports structure

There is no national port authority in the U.S. and organisation and jurisdiction varies from port to port. Most U.S. ports are publicly owned by the relevant state or municipal authority. The port authorities own the land and property, and lease the marine terminals out to terminal operators who conduct the actual business of loading and unloading cargo. Ports and terminals are required to have a certificate of adequacy. However, most terminal operators do not provide waste reception facilities themselves. Instead, arrangements are made directly between ship owner/operators and independent waste reception providers.

APPENDIX 2 (8)

Adequacy criteria

The minimum criteria used for determining adequacy are those contained in the IMO guidelines, and include timeliness, capacity and equipment.

Additionally, a facility must hold all federal, state and local permits and licences required by environmental and public health laws relating to the handling of waste. The facilities must be conveniently located so as not to discourage their use. They must also be situated so that wastes and residues removed from ships cannot readily enter into the water.

Obtaining a COA is a step by step process. The facility submits a COA application to the Captain of the Port (COTP) for review. If the application meets the necessary requirements, the COTP conducts an inspection of the port or terminal. If all is found to be in order, the COTP issues the COA. Annual inspections are encouraged, in conjunction with mandatory safety inspections, for example. Inspectors record results of inspections using the Coast Guard's Marine Information for Safety and Law Enforcement System (MISLE).

Inadequacy reports and investigations

We encourage inadequacy reports from ship owners by telephone or email, using the standard reporting format. Field units copy Coast Guard HQ in Washington, DC, on any inadequacy investigation. The investigation involves an examination of the relevant facilities' waste stream logs for waste streams from vessels, uniform hazardous waste manifests, and declarations of inspections. The identity of the reporting party is not necessarily made known.

If the facility is found to be inadequate, we can send a letter of warning, make recommendations to correct inadequacies, revoke the COA, deny vessel entries to the port, or take legal action under US law.

To provide an idea of the dimensions of the US system, 146,756 vessels arrived in US ports in 2007. There are 35,611 different types of facility in the U.S., with 2,230 facilities holding a COA (as of November 2008). 17,259 inspections were conducted in 2007. Reports of inadequacy and investigation results are provided to the IMO's Legal and Regulatory Compliance Division.

APPENDIX 2 (9)**Conclusion**

The goals of the COA programme are to promote safety and environmental stewardship. We want to promote and encourage pollution prevention policies internationally, nationally and locally. We want to keep industry on the move with minimal delays – this is a key point for us. We want to encourage best practice methodology and the use of technology by working with industry and IMO member states. Our ultimate goal is to achieve and maintain 100% MARPOL compliance.

The US maintains a robust MARPOL reception facility programme aimed at meeting our international stewardship responsibilities. We own the problem and we want to own the solution.