

GANTIRUGI AKIBAT PENCEMARAN MINYAK DI LAUT
MENURUT HUKUM INTERNASIONAL



O i e b

MUHAMMAD HATTA

FAKULTAS HUKUM
UNIVERSITAS "45" UJUNG PANDANG

1991

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Oleh

MUHAMMAD HATTA

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Sarjana Negara Jurusan Hukum Internasional

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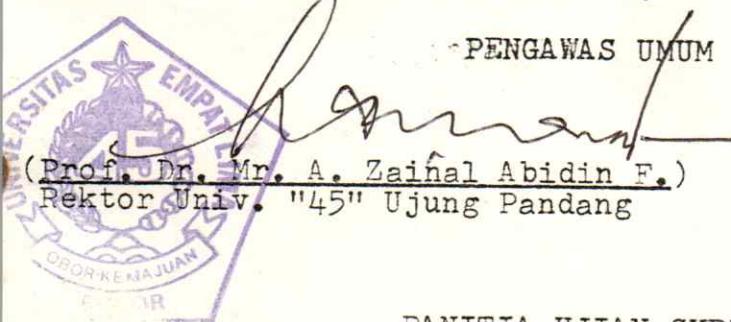
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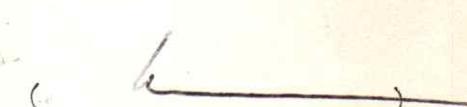

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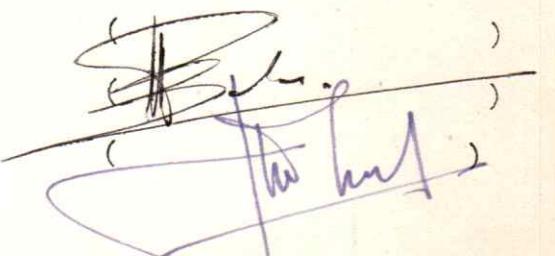

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Article : 207 - 235

A B S T R A K

Pencemaran laut adalah suatu keadaan dalam suatu zat dan atau energi di introduksikan ke dalam lingkungan laut oleh kegiatan manusia atau oleh proses alam itu sendiri dalam konsentrasi sedemikian rupa hingga menyebabkan terjadinya perubahan dalam keadaan termaksud yang mengakibatkan lingkungan laut itu tidak berfungsi seperti semula dalam arti kesehatan, kesejahteraan dan keselamatan hayati. Akibat dari pencemaran laut senantiasa mengancam kelestarian lingkungan laut dari waktu ke waktu begitupun ekosistem dari lingkungan laut ikut pula terganggu kelestariannya.

Pencemaran laut yang paling berbahaya adalah pencemaran yang diakibatkan oleh minyak. Bahaya pencemaran laut oleh minyak setiap waktu dapat menimpa setiap pantai. Di mana wilayah Indonesia yang sangat strategi dan sering dilalui oleh kapal-kapal tanker milik negara asing maupun milik pemerintah Indonesia sendiri. Pada bulan Januari tahun 1975, kapal tanker "Showa-maru" kandas di Selat Malaka/Singapura dan menyebabkan pencemaran perairan Indonesia di Selat tersebut, kita tersentak dan sadar bahwa juga di halaman rumah kita orang lain dapat mencemarkannya.

Agaknya peristiwa Showa-Maru ini telah banyak menyadarkan kita bahwa pada waktu itu kita belum siap menghadapi kejadian demikian. Kekurangan-kekurangan tersebut bukan hanya dalam bidang teknis penanggulangan saja tetapi dalam monitoring dan -

penilaian akibatnya landasan hukumnya dan kelembagaan penyelesaianya.

Untuk menanggulangi masalah pencemaran laut oleh minyak telah dilakukan berbagai usaha baik secara Nasional maupun secara Internasional.

Secara Nasional, dalam menanggulangi masalah pencemaran laut oleh minyak telah diadakan beberapa seminar ilmiah, baik dalam bidang yuridis maupun teknisnya, kemudian menghasilkan perumusan yang sebagian telah diwujudkan oleh pemerintah.

Secara Internasional, telah dilakukan berbagai konvensi yang diikuti oleh negara-negara ataupun telah diadakan perjanjian yang bersifat multilateral, misalnya : United Nation Convention on the law of the sea, 1982 (UNCLOS - III).

Dengan difahaminya lingkup serta perincian dari kerusakan yang dapat terjadi dalam suatu tumpahan minyak di lingkungan laut maka upaya selanjutnya adalah untuk dapat menentukan seberapa besar kerugian yang diderita oleh negara pantai. sistem penentuan besarnya kerugian yang dapat dituntutkan ini akan berupa :

- 1). Sistem gantirugi mutlak (Strict Liability) yang akan berarti bahwa kewajiban gantirugi terjadi secara mutlak pada saat terjadinya peristiwa tumpahan minyak, lepas ada atau tidaknya kesalahan baik dari pelaku peristiwa tumpahan, pihak ketiga maupun pemilik minyak itu.
- 2). Sistem gantirugi penuh (Absolut liability) yang menggunakan

kan pola dasar perbuatan melanggar hukum yang meinmbulkan kerugian pada pihak lain. Sistem ini mendasarkan adanya pertanggungjawaban berdasarkan pada kesalahan (Liability Based on fault) berarti terjadinya kecelakaan kapal yang mengakibatkan tumpahan minyak tidak mutlak mengakibatkan timbulnya memberi gantirugi. Kalau tidak bisa dibuktikan adanya kesalahan maka tidak terjadi pertanggungjawaban, sedangkan mengenai batas jumlah gantirugi serta jenis dan perincian dari kerugian yang dapat dituntutkan adalah tergantung kepada pembuktian dan keadaan dapat mencapai jumlah gantirugi yang penuh.

BAB 1

PENDAHULUAN

1.1. Latar Belakang Masalah

Indonesia merupakan salah satu dari 130 Negara berpantai di dunia yang sebagian besar (hampir dua pertiga) dari wilayahnya berupa laut.

Letak Indonesia secara geografis sangat strategis yaitu terbelah tepat di tengah-tengah silang lautan yaitu samudera pasifik dan samudera Indonesia (Hindia) serta terletak pula diantara dua benua yakni benua Asia dan Australia. Sebagai konsekwensi dari letaknya yang sangat strategis itu maka perairan Indonesia sangat ramai dilalui oleh kapal-kapal asing baik kapal dagang, kapal pengangkut, kapal perang maupun kapal tanker sehingga perairan Indonesia sangat penting sekali artinya bagi lalu-lintas laut Indonesia khususnya dan dunia pada umumnya.

Sesuai dengan letaknya yang sangat strategis bagi lalu lintas laut, maka menjadi suatu kewajiban bagi kapal asing khususnya kapal tanker untuk taat pada peraturan pelayaran lalu lintas laut jika hendak melintasi perairan Indonesia tersebut.

Kerugian yang disebabkan oleh kandasnya kapal atau kecelakaan kapal, tentunya kapal-kapal tanker (kapal pengangkut minyak) sudah terasa sekali bagi negara pantai khususnya negara Indonesia sendiri.

Wilayah Indonesia yang sangat sering dilalui oleh kapal-kapal tanker baik negara asing maupun milik pemerintah adalah Selat Malaka, karena Selat tersebut merupakan jalur pengangkutan yang sangat penting dan ramai dilalui oleh kapal-kapal minyak negara-negara Timur-tengah menuju Jepang.¹⁾ Apabila kapal-kapal tanker tersebut mengalami musibah di Selat Malaka maka akan terasa sekali akibatnya bagi Indonesia, disamping Malaysia dan Singapura.²⁾ Indonesia pernah mengalami kerugian akibat terjadinya pencemaran oleh minyak,³⁾ yaitu peristiwa tenggelamnya kapal Syowa-maru.⁴⁾ Setelah terjadinya peristiwa tersebut Indonesia perlu menyadari betapa pentingnya diadakan suatu pengaturan yang lebih intensif mengenai pelayaran lalu-lintas laut.

Banyak masalah yang timbul apabila pantai tersebut tercemar misalnya saja para nelayan mengalami resiko terlalu besar dengan berlayar ke tengah laut untuk mendapatkan hasil yang baik. Tentu saja hal ini dikarenakan perairan dekat pantai sudah dicemari oleh minyak, sehingga jumlah ikan menjadi berkurang di wilayah tersebut.⁵⁾

- 1). Moctar Kusumaatmadja, Konvensi-konvensi IMCO dan Pelayaran nasional, prasaran yang disampaikan pada seminar pelayaran Jakarta tgl. 6-13/4-1970.
- 2). Kirdi Dipoyudu, Persoalan Selat Malaka, Lit.bang Deplu. - Oktober 1976, hal. 2-3.
- 3). Didalam skripsi ini digunakan istilah "Pencemaran sebagai terjemahan dari Pollution.
- 4). Komar Kantaatmadja, Beberapa masalah sekitar ganti rugi - polusi minyak di laut, Padjadjaran, jilid VIII, April 1977 hal. 19.
- 5). Wahyudi Wisaksono, Legal Aspects of Pollution Of The Marine Enviroment by Oil in Indonesia, Scientific Contribution, - Lemigas, No. 1, Tahun 1978, hal. 12.

Lazimnya pencemaran laut oleh minyak yang berasal dari kapal itu terjadi melalui tiga cara yaitu: ⁶⁾

- 1). Tumpahan minyak dari kapal sebagai pembuangan sisa minyak. Suatu hal yang wajar dalam operasi kapal dan dilakukan oleh beribu-ribu kapal di atas laut.
- 2). Tumpahan minyak sebagai akibat kecelakaan kapal baik karena tabrakan maupun karena kandas.
- 3). Peristiwa lain yang dapat menimbulkan bencana pencemaran laut oleh minyak pada perairan sekitar pelabuhan yaitu berasal dari pemompaan air pemberat kapal, perembesan dan kebocoran. Terutama kecorobohan para pekerja pada saat pengisian bahan bakar kapal sehingga minyak itu tumpah dan masuk ke dalam laut.

Pencemaran laut oleh minyak dapat menimbulkan kerusakan dan kerugian yaitu : ⁷⁾

- 1). Kerusakan pada pantai, termasuk pada gangguan pada tempat rekreasi di pantai yang bisa mempunyai pengaruh terhadap touris.
- 2). Kematian burung-burung laut dan binatang lainnya.
- 3). Pengaruh yang buruk kepada ikan dan organisme laut yang menjadi makanan ikan.

Bahaya pencemaran laut oleh minyak setiap saat dapat

-
- 6). St. Munadjat Danusaputro, Hukum Pencemaran dan merintis pola pembangunan hukum pencemaran Nusantara (seri hukum dan lingkungan hidup) Bab IV, Th. 1978, hal. 99.
 - 7). Wahyudi Wisaksono, Pencemaran daerah pantai Indonesia, permasalahan, penanggulangan dan pengaturannya, Lembaran Publikasi Lemigas, Th. 1976, hal. 9.

menimpa setiap pantai, sekalipun tempat terjadinya kecelakaan kapal tanker itu jauh letaknya dari pantai, akan tetapi karena adanya angin dan arus laut, minyak yang berasal dari kapal yang mengalami bencana itu dapat terbawa dari tempat terjadinya kecelakaan.

Perikanan dan kekayaan hayati lainnya, seperti Moluska Crustaceae, Rumput laut, plankton serta larvae, akan mengalami gangguan karena adanya pencemaran minyak yang terdapat di atas laut ataupun di atas permukaan laut. Disamping itu juga karena digunakan bahan kimia (terutama detergent) untuk melemparkan minyak dari permukaan laut yang akan bercampur dengan air laut tersebut, sehingga akan merusak kekayaan hayati laut seperti yang telah disebutkan di atas.⁸⁾

Kerusakan biologis di dalam air dikarenakan sinar matahari yang menembus ke dalam air laut menjadi berkurang sebab terhalang oleh minyak yang tergenang di permukaan laut. Akibat yang lebih jauh ditimbulkan minyak yang tergenang di permukaan laut adalah keracunan pada zoo plankton yang hidup dipermukaan laut akan berkurang dan ini mengakibatkan perkembangan dan produksi ikan laut akan berkurang pula.

Untuk menanggulangi masalah pencemaran laut oleh minyak tersebut telah dilakukan berbagai usaha baik secara Nasional maupun Internasional.

8). Ved. P. Nanda, The Torrey Canyon Disaster some Legal Aspects
Denver Law Journal, Vol. No.44, Tahun 1967
hal. 402.

Secara Nasional, dalam menanggulangi masalah pencemaran laut oleh minyak ini telah diadakan beberapa seminar ilmiah baik dalam bidang hukum atau yuridis maupun teknisnya dan menghasilkan perumusan yang sebagian telah diwujudkan oleh pemerintah misalnya dengan penetapan suatu skema pemisahan lalu lintas di Selat Malaka (traffic separation scheme). Untuk menanggulangi laut secara teknis, akan ditetapkan suatu undang-undang lingkungan hidup, bagi penanggulangan pencemaran laut secara yuridis.⁹⁾ Saat ini yang ada hanya beberapa peraturan per-undang-undangan sektoral yang mengatur masalah pencemaran laut oleh minyak akibat kecelakaan kapal ataupun akibat kandasnya kapal, yang pengaturan secara konkret dengan disertai sanksi-sanksinya.

Yang terpenting dilakukan negara-negara pantai yang seringkali dirugikan oleh pencemaran minyak adalah menangani masalah kewenangan negara pantai untuk dapat mengambil langkah-langkah perlindungan lautnya dan masalah siapakah subyek yang bertanggungjawab terhadap kerugian yang terjadi.

Secara pengaturan Internasional, pencemaran laut oleh minyak apabila dilihat dari aspek hukumnya telah memadai. Ini disebabkan karena telah cukup banyak konvensi-konvensi Internasional yang mengatur masalah ini yang dicetuskan oleh PBB dan IMCO, suatu badan khusus PBB yang mengurus bidang maritim dan didirikan di Jenewa tahun 1959.¹⁰⁾

9). Hasjim Djalal, Masalah Selat Malaka/Singapura, Jakarta tahun 1972, hal.

10) John Columbus, International Law Of The sea, London, tahun 1970, hal. 374.

Apabila pencemaran oleh minyak tersebut ditinjau secara luas dan menyeluruh, maka konvensi-konvensi Internasional yang telah diratifikasi dan diikuti oleh negara-negara pantai yang sering dirugikan oleh pencemaran minyak tersebut sudah cukup banyak.

Dengan demikian, maka setiap negara pantai yang telah meratifikasi konvensi-konvensi Internasional tersebut dapat terlindung wilayah lainnya dari akibat pencemaran laut oleh minyak dan memperpendah proses dalam penuntutan ganti rugi terhadap pemilik kapal tanker yang menjadi penyebab kerusakan lingkungan laut tersebut.

1.2 Batasan Masalah:

Masalah-masalah yang akan kami bahas di dalam skripsi ini ialah :

1. Sejauhmana pengaturan mengenai Kompensasi akibat pencemaran laut oleh minyak menurut Hukum Internasional.
2. Sejauhmana Negara-negara mengaplikasikan pengaturan Kompen-sasi menurut hukum Internasional.
3. Sampai berapajauh peristiwa kecelakaan tumpahan minyak di laut dapat dimintakan tanggungjawab kepada pelakunya.

1.3 Metode Penelitian:

Dalam rangka penulisan skripsi ini, maka penulis akan mempergunakan metode, yakni sebagai berikut:

1. Penelitian kepustakaan (Library Resarch) yaitu suatu

cara pengumpulan data misalnya : karya-karya ilmiah, majalah majalah dan lain-lain yang erat hubungannya dengan skripsi.

2. Penelitian lapangan : yaitu penelitian : yang dilakukan di lapangan dalam bentuk wawancara dengan para responden sesuai dengan bidang masing-masing yang relevan dengan skripsi ini.

1.4. Sistematika Pembahasan

Untuk memberikan gambaran secara lengkap mengenai skripsi ini maka diuraikan dalam bab-bab yang sistematika pembahasan sebagai berikut :

Bab 1. Pendahuluan. Pada bab ini akan diuraikan tentang latar belakang masalah, batasan masalah, metode penelitian dan sistematika pembahasan.

Bab 2. Pengertian sumber-sumber pencemaran lingkungan laut dan upaya penanggulangannya. Pada bab ini akan diuraikan pengertian mengenai pencemaran lingkungan laut, Sumber-sumber pencemaran lingkungan laut, dan upaya peanggulangan pencemaran lingkungan laut.

Bab 3. Masalah pencemaran akibat tumpahan minyak di laut dan dasar hukum penanggulangannya. Pada bab ini akan dijelaskan mengenai beberapa kasus tumpahan minyak, kerugian-kerugian akibat tumpahan minyak, dan pencegahan/penanggulangan tumpahan minyak (Dasar hukumnya).

Bab 4. Pengaturan masalah Kompensasi. Pada bab ini akan

dijelaskan mengenai aturan hukum Nasional dan aturan hukum Internasional.

Bab 5. Penutup. Pada bab ini penulis akan menguraikan atau menarik suatu kesimpulan dari seluruh apa yang telah dibahas dalam skripsi ini dan juga penulis akan memberikan saran-saran menyangkut pencemaran yang diakibatkan oleh minyak .

BAB 2
 PENGERTIAN, SUMBER-SUMBER PENCEMARAN
 LINGKUNGAN LAUT DAN UPAYA-UPAYA
 PENANGGULANGANNYA

2.1. Pengertian Pencemaran Lingkungan Laut

Memberikan suatu pengertian tentang pencemaran lingkungan laut yang diakibatkan oleh minyak, maka yang paling penting adalah mengemukakan beberapa definisi dari beberapa konvensi konvensi Internasional maupun pendapat dari pakar hukum laut Internasional.

Sebagai definisi yang pertama, seperti apa yang dikemukakan Ir. Otto Soemarwoto, bahwa yang dimaksud dengan pencemaran adalah sebagai berikut : ¹¹⁾

"Pencemaran ialah adanya suatu organisme atau unsur lain dalam sumber-daya, misalnya air atau udara dalam kadar yang mengganggu peruntukan sumber-daya itu".

Definisi lain dari pencemaran sebagai terjemahan dari istilah "Water Pollution" yang dapat dikemukakan dalam (Encyclopedia Americana, ¹²⁾) yaitu pengurangan kualitas air dalam penggunaan air oleh manusia, yang diakibatkan penyalagunaan atau mismanagement dari sumber-sumber air dalam aktifitas penggunaan air tersebut oleh manusia.

- 11). B P H N, Seminar segi-segi hukum dari pengelolaan lingkungan hidup, Binacipta, Bandung, 1976, hal. 82.
- 12). Verne H. Scott, Water Pollution, Encyclopedia Americana Volume 28, tahun 1972, hal. 441.

Penyebab kerusakan air tersebut dapat pula bersifat kimiawi fisik atau unsur-unsur biologis yang merusak kondisi alamiah dari air.

Terdapat pula definisi yang ditetapkan oleh sidang para menteri O.E.C.D. seperti termuat dalam "Title Of The Annex To The Recomendation On Principle Concerning Trans-Frontier Pollution (Adapted At The Conclution Of The First Meeting At Ministerial Level Of The Enviroment Commite Of The O.E.C.D. November 13/14 1974) yang berbunyi sebagai berikut :

"Pollution Is The Introduction By Man, Directly Or Indirectly, Of Substances Energy Into The Environment Resulting In Deleterious Effects Of Such A Nature As To Endanger Human Health, Harm Living resources And Ecosystem And Impair Or Interpere With Amenites And Other Legitimate Uses Of The Environment....¹³⁾)

Prof. Moctar Kusumaatmadja menyebutkan pencemaran laut sebagai perubahan pada lingkungan laut yang terjadi akibat dimasukkannya oleh manusia secara langsung ataupun tidak langsung bahan atau energi ke dalam lingkungan laut yang menghasilkan akibat yang demikian buruknya sehingga merupakan kerugian terhadap kekayaan hayati, bahkan terhadap kesehatan manusia, gangguan terhadap kegiatan di laut termasuk perikanan dan lain-lain penggunaan laut yang wajar, pemburukan dari kualitas air laut dan terganggunya tempat-tempat pemukiman dan rekreasi. ¹⁴⁾

Dari susunan kata-kata dan isinya, nampaklah bahwa

- 13). St. Munadjat D. Hukum Pencemaran Dan merintis Pola Penggunaan Hukum Pencemaran Nusantara (Seri Hukum Lingkungan Hidup), Bab IV, Tahun 1978,hal. 99
- 14). St. Munadjat Danusaputro, Op.Cit. hal. 112.

sesungguhnya sangat sukar dapat memperoleh suatu definisi yang memuaskan semua fihak. Namun demikian rumusan-rumusan tersebut di atas mempunyai beberapa persamaan dan sudah dijadikan pegangan dalam meninjau dan membahas masalah pencemaran laut, khususnya dalam memberikan gambaran isi dan ruang lingkup masalah pencemaran laut, yang perlu diatur dalam hukum dan dalam pokoknya berkisar pada pengertian sebagai berikut :

- 1). Pengertian tentang lingkungan laut (Tempat dan lokasi)
- 2). Pengertian tentang waktu diintroduksikannya zat pencemaran ke dalam lingkungan.
- 3). Pengertian tentang jumlah dan mutu zat pencemaran yang ditimbulkannya.
- 4). Pengertian tentang akibat pencemaran (Kerugian atau kerusakan).
- 5). Pengertian tentang pelaku pencemaran (Tanggungjawab).

Sehubungan dengan definisi di atas, dapat pula dikemukakan suatu definisi mengenai pencemaran lingkungan yang terdapat pada pasal : 1 ayat q rancangan Undang-undang Republik Indonesia tentang ketentuan-ketentuan pokok pengelolaan lingkungan hidup yang berbunyi sebagai berikut : ¹⁵⁾

"Pencemaran Lingkungan Adalah masuk atau dimasukkan nya zat Lain, Energi dan/atau Unsur lain Ke dalam suatu Lingkungan oleh kegiatan manusia/kelompok manusia, Badan Hukum atau oleh proses alam sampai tingkat kadar tertentu yang menyebabkan terjadinya kerusakan, penurunan mutu lingkungan yang bersangkutan hingga lingkungan termasuk tidak berfungsi seperti semula"

15). Rancangan Undang-Undang Tentang Ketentuan-ketentuan pokok-pokok lingkungan hidup.

Definisi tersebut di atas merupakan rencana pemerintah sekaligus menjadi Rancangan Undang-undang untuk masa yang akan datang. Hal ini menunjukkan bahwa pemerintah Indonesia senantiasa mengikuti perkembangan penanggulangan pencemaran lingkungan laut, dengan memasukkan pokok-pokok pengertian ketentuan Internasional tersebut di atas ke dalam perundang-undangan Nasional kita.

Upaya pemerintah merupakan langkah yang lebih maju dalam rencana Nasional untuk penanggulangan pencemaran laut sebagai laporan hasil seminar Nasional pengembangan lingkungan lingkungan hidup yang diselenggarakan dari tanggal 5 sampai dengan Juni tahun 1976, di Jakarta. Di dalam definisi tersebut tidak ditemukan istilah pencemaran laut, yang ada hanyalah definisi dari istilah : Minyak adalah bahan bakar pencemar yang berbahaya, penumpahan dan sebagainya.¹⁶⁾ Umpamanya minyak adalah minyak tiap jenis atau bentuk termasuk minyak tanah, minyak bakar, minyak buangan, minyak bumi dan minyak bercampur kotoran.

Bahan pencemaran yang sangat berbahaya adalah : Elemen atau campuran didampingi minyak yang bila dilepaskan dalam kualitas apapun dalam wilayah perairan laut Indonesia, dapat merupakan suatu bahaya bagi kesehatan dan kesejahteraan umum. Penumpahan kecil adalah suatu pelepasan minyak yang kurang dari 5 meter kubik di perairan pelayaran ataupun suatu pelepasan bahan dalam kualitas yang merupakan bahaya bagi kesehatan.

16). Laporan hasil seminar Nasional pengembangan lingkungan hidup, Jakarta, tahun 1976, hal. 11.

adinya perubahan dalam ke -
ngakibatkan lingkungan laut
erti semula dalam arti ke -
ian keselamatan hayati.¹⁸⁾

Tentang lingkungan laut sebagai
idi, banyak sarjana dan ahli menun -
sebagai bagian dari alam mempu -
n kembali dirinya sejauh zat pen -
• Dalam pada itu perlu juga diper -
ang demikian itu ternyata terbatas
etapkannya ternyata sangat sukar

emaran itu selamanya tidak sem -

itu tergantung juga kepada effek
ologi yang ditimbulkan terhadap
us mengenai effek biologis, ter -
netapkan, karena penelitiannya
ibu-ribu kehidupan organisme

tas, nampak sekali bahwa faktor
ngsi yang sangat penting selagi
-akibat pencemaran yang oleh
n berat ringannya tanggungjawab
r kecilnya denda serta ganti

national Pollution Law, 1974.
Lemhanas, Th. 1973, hal. 7.

Mengenai soal waktu, rasanya sudah jelas betapa pentingnya faktor tersebut. Pertama faktor waktu diperlukan untuk menentukan saat permulaan pencemaran yang diperlukan untuk menetapkan saat mulainya tanggungjawab, disamping itu juga sebagai saat mulainya perhitungan ganti rugi tersebut itu dihitung.

Dalam pada itu, perlu diperhatikan bahwa faktor waktu itu juga mempunyai daya meringankan tanggungjawab, karena dapat menunjukkan jenis musim yang sedang berlangsung, yang ada hubungannya dengan arah angin serta kadar panas matahari. Ketentuan ketentuan tersebut sangat berpengaruh terhadap kemampuan laut dalam memulihkan kembali dirinya, begitu pula tentang pengaruh alam terhadap proses degradasi zat pencemar, yang perlu mendapat perhatian penuh dari hukum.²⁰⁾

Pengaturan mengenai jumlah dan mutu pada zat pencemaran mempunyai daya penentu yang fundamental karena dari luar dua faktor tersebut dapat ditentukan derajat dan intensitas pencemaran. Padanya dapat kemudian diketahui akibat-akibat pencemaran, yang menjelaskan derajat kerusakan atau derajat kontaminasi yang tertinggal. Kedua hal tersebut merupakan dasar ataupun landasan untuk menetapkan tanggungjawab berikut denda dan ganti rugi yang harus dibayar oleh si pelaku pencemaran.²¹⁾

2.2. Sumber-sumber Pencemaran Lingkungan Laut

Pencemaran laut dapat terjadi bukan hanya oleh minyak

20). Frannk Haencke, German Aspekts Of An enviromental Police and Possible Consequences For Develoving Countries, (One Only, Tokyo, Th. 1973)

21). St. Munadjat D. Op.Cit. hal.7.

tetapi juga oleh bahan-bahan lain. Kalau kita mengikuti berbagai cabang hukum Internasional dibidang pengaturan pencemaran maka dapat diikuti adanya beberapa jenis sumber pencemaran. Dalam konvensi hukum laut Perserikatan Bangsa-bangsa yang ke-III 1982, menyebutkan beberapa sumber pencemaran yaitu : ²²⁾

- 1). Pencemaran berasal dari sumber daratan.
- 2). Pencemaran yang berasal dari kegiatan-kegiatan dari laut.
- 3). Pencemaran yang berasal dari kegiatan-kegiatan di kawasan.
- 4). Pencemaran karena dumping.
- 5). Pencemaran yang berasal dari kendaraan air.

Sedangkan menurut St. Munadjat Danusaputro dalam bukunya "Metode-Komprehensif" menyebutkan beberapa sumber pencemaran yaitu : ²³⁾

- 1). Berasal dari perindustrian/pengangkutan.
- 2). Berasal dari kegiatan pemukiman.
- 3). Berasal dari pertambangan.
- 4). Berasal dari pertanian.
- 5). Berasal dari penggunaan/pengembangan bahan radio aktif.

Pencemaran yang berasal dari kelima sumber tersebut di atas dapat pula menyentuh dan mempengaruhi lingkungan laut, karena pada dasarnya bahan-bahan pencemaran tersebut akhirnya sampai juga ke laut melalui aliran-aliran sungai, saluran dsb.

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- 2). United Nation Convention On The Law Of The Sea 1982 Article : 207, 208, 209, 210 dan 211.
 - 23). St. Munadjat Danusaputro, Metode Ilmiah-Komprehensif Lemhanas, tahun 1973, hal. 59.

khususnya bagi Indonesia sebagai negara kepulauan dengan semua sungai dan salurannya mengalir ke laut, maka lingkungan laut nya sungguh sangat terbuka bagi masuknya serbuan pencemaran yang berasal dari daratan.

Dalam pada itu, untuk kepentingan pengaturan hukum dan khususnya untuk ketajaman dalam mengarahkan ketentuan hukum itu perlu disadari bahwa sesungguhnya tidak pernah dijumpai adanya terhadap sekedar membuang barang sisa ke laut, yaitu membuang sesuatu zat ke laut sedemikian rupa hingga menimbulkan pencemaran laut. ²⁴⁾

Dalam hubungan itu terdapat suatu aturan yang mengatur pembuangan sampah dan sebagainya ke laut dan melarang serta mengatur tindakan tersebut, jika sampai menimbulkan pencemaran.

Demikian Convention For The Prevention Of Marine Pollution By Dumping From Ships And Aircraft, (Oslo, 1972) dan London Convention On The Prevention Of Marine Pollution By Dumping Of Wastes and Other Matters, tahun 1972. Telah memberikan pengertian-pengertian serta norma-norma hukumnya secara tegas, sekalipun konvensi Oslo tersebut terutama dimaksudkan untuk melindungi samudera Atlantik bagian Timur laut, namun di dalamnya diterapkan tempat-tempat lain. Demikianlah antara lain terdapat daftar bahan-bahan terlarang seperti dimuat dalam Annex I, yang oleh Article 5 dilarang dengan tegas : The Dumping Of The Substances Listed In Annex I To This Convention Is Prohibited.

24). G. Moore, International And National Legislation And Regulatory Institutions, (FAO/SIDA/ TF - 95 - supl. hal. 298.

Dalam Art. 6 diberikan kemungkinan untuk membuang sampah dan sebagainya ke laut dengan izin dari para penguasa. Apabila izin telah diperoleh maka ketentuan-ketentuan tersebut dalam Annex II dan III dinyatakan berlaku. salah satu dari ketentuan itu menyebutkan, bahwa pembuangan sampah yang diizinkan itu harus dibuang ke laut yang memiliki kedalaman tidak kurang dari 2.000 meter dan jarak dari pantai negara terdekat tidak boleh kurang dari 150 mil laut. Demikianlah suatu contoh tentang mungkin membuang sampah dan sebagainya ke laut. ²⁵⁾

Memperhatikan lebih lanjut isi konvensi tersebut, maka sungguh menarik perhatian yang secara jelas menyatakan posisi laut dan lingkungan laut dewasa ini dalam hubungannya dengan masalah pencemaran. Dalam kalimat pembukaan dinyatakan :

"Recognizing That marine Environment and living resources which it supports are of vital importances to all nations mindful that the ecological equiliberium and the legitimate use of the sea are increasingly threatened by pollution". ²⁶⁾

Dalam hubungan ini, dinyatakan juga bahwa pencemaran itu mempunyai sumber beraneka ragam, termasuk di dalamnya Dumping from ships and aircraft and through rivers, estuaries, outfalls and pipelines within National jurisdiction.

Apabila konvensi Oslo tersebut sudah dapat menjelaskan tentang berbagai sumber pencemaran seperti tersebut di atas maka suatu jenis pencemaran yang telah memperoleh pengaturan hukum secara mendalam dan luas, adalah pencemaran laut yang diakibatkan oleh minyak.

25). Konvensi Oslo, tahun 1972.

26). I b i d.

G. Brockis, dari British Petroleum Co. Ltd. London, dalam bukunya Sources Of Sea Pollution by Oil, hal. 77. Melaporkan bahwa lebih dari setengah perdagangan dan pelayaran di dunia sekarang bersangkut-paut dengan pengangkutan minyak dan bahan bahan yang berasal dari minyak. Menurut pengamatan, bahwa minyak dan bahan-bahan yang berasal dari minyak itu mengarungi samudera jauh lebih luas dari barang-barang dagangan yang lain.

Pada bulan Februari 1972 diperkirakan jumlah tonase kapal minyak itu telah mencapai 170 juta ton dwt, yang berarti telah melampaui jumlah setengah dari seluruh armada di dunia. Dengan ditutupnya terusan Zues setelah perang Mesir-Israel tahun 1957 maka perusahaan-perusahaan pengangkut minyak makin berlomba-lomba membangun kapal-kapal tanki raksasa.

Lazimnya pencemaran yang berasal dari kapal itu terjadi melalui dua cara yaitu :

- 1). Karena tumpahan minyak dari kapal-kapal pembuangan sisa minyak (minyak kotor) yang merupakan akibat wajar dalam operasi kapal yang dilakukan beribu-ribu kapal di atas laut.
- 2). Karena tumpahan minyak sebagai akibat kecelakaan kapal baik karena tabrakan maupun karena kandas.

Pembuangan minyak kotor sebagai akibat dari operasi kapal dapat mudah diawasi dan diatur. Lain halnya dengan tumpahan minyak yang disebabkan oleh kecelakaan kapal.

Demikianlah bahaya penecemaran laut karena minyak itu disadari sejak tahun 1972. Pada waktu itu di Washinton diselenggarakan suatu konperensi di bawah naungan Liga Bangsa-bangsa.

Ternyata usaha pertama itu tidak menghasilkan persetujuan seperti yang diharapkan. Namun demikian, ternyata rintisan sungguh bermanfaat bagi langkah-langkah selanjutnya. Dalam konferensi di London pada tahun 1954, berhasil dibentuk suatu International Convention For The Prevention Of Pollution Of The Sea By Oil, yang kemudian lebih terkenal sebagai London Convention 1954. Konvensi tersebut baru mulai berlaku pada tahun 1958.²⁷⁾

Pada tahun 1959 pekerjaan sekretariat konvensi dialihkan kepada suatu organisasi baru bernama : Inter-Governmental Maritime Consultative Organisation (IMCO), yang bernaung di bawah Perserikatan Bangsa-Bangsa. Atas prakarsa IMCO konvensi tersebut diubah dan ditambah pada tahun 1962, 1969 dan 1971.

Dalam pokok-pokoknya, konvensi London 1954 itu mengatur yaitu :

- 1). Tatacara pembuangan minyak kotor dari kapal.
- 2). Tata pembangunan kapal dengan menyediakan alat-alat pembuangan minyak kotor.
- 3). Mewajibkan penyediaan tempat-tempat pembuangan minyak kotor di pelabuhan, terminal minyak dan dok-dok reparasi kapal.
- 4). Penentuan daerah laut yang dinyatakan menjadi daerah terlarang bagi pembuangan minyak.

Oleh perubahan-perubahan yang ditetapkan pada tahun 1962 daerah-daerah terlarang tersebut diperluas. Perubahan pada tahun 1969 ditetapkan sebagai terjemahan kesadaran terhadap bahaya

27). G.J. Brokcis, Sources Of Sea Pollution By Oil, hal. 78

pencemaran laut itu, seperti diakibatkan malapetaka "Torrey Canyon" yang kandas di muka pantai Inggris pada tanggal 17 Maret 1967. Dalam malapetaka tersebut ternyata benar bahwa pantai Inggeris dan Perancis menderita kerugian besar sekali. Oleh sebab itu maka timbul pemikiran, hak-hak apakah yang dapat diberikan kepada negara pantai dalam menghadapi masalah semacam itu. ²⁸⁾

2.3 Upaya-upaya Penanggulangan Pencemaran Lingkungan Laut

Sejak sebelum terciptanya perkembangan teknologi permianyanan, pertambangan minyak Indonesia seperti di tempat-tempat lain sudah melibatkan diri dalam usaha-usaha pencegahan pencemaran di berbagai langkah operasinya. Bahkan banyak dari usaha-usaha tersebut sudah dianggap kebiasaan operasional. Mula-mula usaha pencegahan tersebut bermotifkan faktor ekonomis, umpannya mencegah tertumpahnya minyak atau pembakaran yang tidak sempurna (heat economy air pollution). Sekarang motifnya lebih luas yaitu pencegahan pencemaran air, udara dan lain-lain.

Usaha-usaha pencegahan pencemaran tersebut biasanya tercakup dalam perencanaan teknis (design) dan tidak menunggu sampai terbentuknya undang-undang pencegahan pencemaran yang formal. Jauh sebelum perang dunia ke- II, kilang-kilang minyak Indonesia sudah menggunakan system pencegahan pencemaran, misalnya: alat penampung minyak (Oil catchers) untuk mencegah

28). Konvensi Brussel, tahun 1971 (Public Law).

ikutnya minyak pada air buangan ke laut, danau penawar (acid-lake) yang menampung sisa asam bekas yang sudah ditawarkan sebelum air buangan dialirkan ke laut, system menawarkan salinitas air, formasi yang berasal dari pengeboran sebelum dibuang ke sungai dan sebagainya. Berkat upaya-upaya tersebut perairan di sekitar kilang minyak di Indonesia tetap terpelihara kelestariannya. Pantai Balikpapan misalnya hingga kini tetap merupakan pantai yang bersih minyak kendati umur kilang Balikpapan sudah lebih dari 65 tahun. Tetapi tantangan menjaga kelestarian ini semakin meningkat bukan hanya bertambahnya jumlah lapangan produksi minyak, tetapi juga karena lapangan-lapangan minyak dan aktivitas perminyakan lainnya semakin banyak mendekati laut dan daerah pemukiman umpamanya di Pulau Jawa dan Laut Jawa. Jika 20 tahun yang lalu Pulau Jawa dan laut Jawa praktis tidak dikenal sebagai lapangan minyak, maka dewasa ini dari daerah tersebut di Export kurang lebih 200.000 barrel sehari minyak bumi.

Sementara itu jumlah kapal-kapal tanki raksasa asing yang hilir mudik di Selat Malaka dan Singapura semakin meningkat. Bahkan volume lalu-lintas umum di Selat tersebut semakin padat. Dengan demikian menambah kemungkinan kecelakaan kapal-kapal tanki tersebut dan kemungkinan pencemaran olehnya.

Tantangan terhadap upaya-upaya penanggulangan pencemaran oleh minyak dewasa ini adalah buangan oleh konsumen minyak bekas pelumasan (waste lubricating oil) dari kapal-kapal non

tanker dan kemungkinan tumpahan minyak oleh kecelakaan kapal tanker raksasa yang lewat di perairan kita.

Hal yang paling penting dalam menghindari pencemaran laut oleh minyak adalah sedapat mungkin mencegah terjadinya suatu tumpahan sama sekali. Apalagi yang tertumpah jumlahnya sekali gus banyak, maka upaya pembersihan tidak dapat dijamin berhasil sepenuhnya.

Instalasi pertambangan, pengolahan dan pengangkutan minyak bumi termasuk jenis instalasi yang memiliki sistem pengamanan keselamatan yang tinggi. Hal ini mutlak diperlukan karena kebocoran minyak dalam bentuk cair atau gas di tempat-tempat yang rawan dapat menimbulkan malapetaka ledakan atau kebakaran. Untuk mencegah tumpahan minyak, perlu diperhatikan tempat-tempat yang rawan dari suatu instalasi dan menjaga kemungkinan terjadinya tumpahan tersebut. Setelah lokasi dan sifatnya diketahui maka di tempat itu dapat dipasang alat-alat pengamanan seperlunya seperti : katup pengaman (safety valves), katup pengatur kontrol (Control Valves), System alarm dan sebagainya.²⁹⁾

Ada beberapa sistem yang bertujuan untuk mengurangi kadar minyak dalam air buangan misalnya : API-separator, Coalescer, gemelectric dsb. Prinsip bekerja alat-alat pemisah air-minyak tersebut dapat dibagi dalam :³⁰⁾

- 1). Kelompok pemisah atas dasar berat jenis. Dalam kelompok ini faktor yang menentukan efektivitas sistemnya adalah :

- Jumlah air yang melalui alat pemisah

²⁹⁾. P.L. Countrier, Seminar Pencemaran Laut, Pertamina, Jakarta, tanggal 26 - 28 Juli 1976, hal. 6-7.

³⁰⁾. I b i d, hal. 8.

- Jumlah kadar minyak dalam air
- Kekentalan minyak (viscosity) dan
- Titik tuang (pour point) minyak yang ada dalam air.
dalam kelompok ini termasuk API dan CPI- separator.

- 2). Kelompok pemisahan atas dasar absorbsi seperti coalescer.
- 3). Kelompok pemisahan dengan memberikan medan listrik pada air tersebut.

Dari ketiga jenis yang dikenal ini, masing-masing mempunyai untung ruginya dan pembatasan penggunaannya. API-separator umpamanya, praktis tidak dapat dipasang pada bangunan lepas pantai (platform) sekalipun jenis ini termasuk yang paling sesuai untuk menangani air buangan dalam jumlah yang banyak. Sebagai gantinya digunakan CPI (Corrugated Plate Interceptor) separator yang lebih efektif untuk memisahkan minyak dengan air akan tetapi jumlah air yang dapat melaluinya lebih terbatas, lagi pula karena bentuk konstruksinya maka CPI-separator juga lebih mahal.

Jenis coalescer dan gemelectric sangat efektif jika dipasang sesudah CPI-separator karena hanya dapat menangani air yang berkadar minyak rendah dan jumlah aliran yang relatif sedikit.

Tumpahan minyak dari bidang angkutan laut merupakan persentase yang terbesar dari seluruh buangan ke laut. ³¹⁾ Tumpahan minyak dari kapal tanki dapat bersumber pada : ³²⁾

- 1). Akibat operasi : umpamanya pembuangan air ballast dan
- 31). Laporan, National Academy Of Scince, Tahun 1975.
- 32). P.L. Countrier, Op. Cit. hal. 10-12.

dan pencucian tanki (tank washing). Seperti diketahui kapal tanki dalam penugasannya tidak selamanya berisi muatan. Pada suatu ketika kapal tanki berangkat dengan membawa muatan dan kembali dalam keadaan kosong atau sebaliknya. Pada pelayaran tanpa muatan, biasanya kapal memuat air ballast agar berlayar dengan stabil. Kadang kala dalam pelayaran ini tanki-tanki bekas minyak kotor dicuci. Menjelang tibanya kapal di tempat akan dimuat, air ballast mulai dibuang ke laut sampai tanki-tanki kosong untuk dimuat minyak lagi. Air yang dibuang, harus bebas dari minyak. Air yang sisa dan masih mengandung minyak dipompakan ke darat ke tanki deballastting. Kadang kala dengan air ballast yang dibuang ke laut itu ikut terbawa sedikit sisa minyak. Maka diciptakanlah beberapa peraturan tentang cara operasi di kapal untuk mencegah minyak lolos ke laut. Beberapa diantaranya seperti : Sistem LOT, segregated tanks dsb.

LOT (Load On Top) adalah suatu teknik menangani sisa air ballast dan pencucian tanki dimana semua minyak bekas/pencucian tersebut dikumpulkan ke dalam suatu tanki khusus, jadi terpisah dari air ballast secara keseluruhan. Muatan berikutnya lalu dimuat (On Top) minyak bekas tadi. Cara ini umumnya diterapkan untuk pemuatian minyak mentah dan telah banyak mengurangi lolosnya minyak ke laut. Berbagai upaya telah dilakukan untuk mencegah lolosnya minyak ke laut. Antara lain sistem LOT sudah sejak tahun 1960 dikembangkan oleh industri minyak melalui OCIMF (Oil Companies International Marine Forum).

Bahkan IMCO (Intergovermental Maritime Consultative Organisation) telah mengembangkan hal ini dalam International Convention For Prevention Of Pollution From Ships, 1973. (Lihat gambar sumber hidrokarbon dalam laut).

2. Tumpahan minyak di dermaga atau pelabuhan dapat terjadi oleh operasi penyambungan/pemutusan sambungan pipa kapal dan pipa darat pada waktu muat atau membongkar minyak. Secara persentase jumlah ini sangat kecil karena pengawasan operasi di darat lebih mudah dari pada di laut.
3. Tumpahan minyak yang jarang terjadi tetapi dalam jumlah sekaligus yang besar sekali, adalah tumpahan oleh kecelakaan kapal tanki, bersama dengan kecelakaan kapal non-tanker.

Dengan semakin meningkatnya ukuran kapal-kapal tanki maka setiap kompartimen di dalam kapal menjadi lebih besar. Jika kapal tersebut kandas dan kompartimen ini bocor maka dapat diperkirakan bahwa jumlah minyak yang lolos ke laut juga lebih besar sekalipun tidak tanpa batas. Untuk mengatasi hal seperti ini tidak banyak yang dapat dilakukan mencegah kandasnya kapal tanki yang bersangkutan. Karena itu makin besar kapal tersebut, semakin banyak teknologi mutakhir diterapkan padanya.

Namun demikian semua teknologi navigasi modern, sistem komunikasi modern dan sebagainya hanyalah alat bantu bagi awak kapal tersebut. Pada akhirnya yang menentukan adalah manusia/awak kapal tersebut sehingga pembinaan dan peningkatan kemampuannya menjadi suatu hal yang mutlak.

terapung dengan cepat. Tinggi dan
urannya demikian pula bentuk dan

di atas permukaan ditentukan oleh
n tersebut akan dipakai, sedangkan
aan air ditentukan oleh derasnya
tor tersebut tujuannya untuk men-
igan boom. Bahan dasar yang diguna-
ya sehingga dapat menahan tekanan
an yang digunakan biasanya biasanya
tesis atau kepingan-kepingan logam
dari bahan tahan api. Juga panjang
ari beberapa meter sampai beberapa
disambung ada pula yang tidak dapat
bar Booms dan Scapacs Vicoma).

minyak:

Jika jumlah minyak yang tertumpah cukup besar dan terpu-
sat di satu tempat (umpamanya didalam pagar minyak) maka da-
pat diusahakan pengumpulannya dengan alat penyedot minyak (Oil
skimmer).

Semula prinsip pengumpulan tersebut adalah dengan menye-
dot (skim) seluruh lapisan permukaan yang ada minyaknya. De-
ngan cara ini cukup banyak air yang ikut masuk ke dalam skimmer
sehingga ukuran skimer harus agak besar. Di dalam skimmer minyak
dipisakan dari air atas dasar perbedaan berat jenis. Setelah

minyak banyak terkumpul, operasi menyedot dihentikan untuk menyedot/memompakan minyak keluar dari dalam skimmer ke dalam penampung lain. Cara ini banyak membuang waktu dan efektif untuk minyak yang senantiasa berada dalam keadaan cair.

Sifat minyak di Indonesia justru banyak yang parafinis sehingga dalam berbentuk semi padat, seperti bubur terapung. Maka sistem ini cukup menyulitkan operasi. Prinsip digunakan dalam Spiltrol skimmer. Kesulitan lainnya adalah alat jenis ini beratnya antara 10-15 ton sehingga memerlukan alat angkut khusus (Crane), akibatnya bisa menyulitkan operasi.

ad.3. Membersihkan daerah sekitarnya:

Adakalanya suatu operasi penanggulangan tumpahan minyak tidak sanggup membersihkan daerah tercemar dengan sempurna hanya dengan cara yang disebutkan tadi. Hal ini mungkin disebabkan kesanggupan/ruang gerak skimmer tidak mengizinkan, atau minyak sudah mencapai daerah yang dangkal.

Maka untuk membersihkan minyak yang tercerai itu digunakan alat yang dapat menghisap minyak. Alat ini disebut Sorbent. Sorbent biasanya dibuat dari bahan yang dapat menghisap minyak saja sedangkan air praktis tidak terhisap. Prinsip penghisap disini seperti daya hisap karet busa.

ad.4. Penggunaan bahan kimia/dispersant:

Kebijaksanaan penggunaan dispersant perlu didasari atas filosofi bahwa dispersant hanya dipakai jika tumpahan minyak tidak dapat dikumpulkan secara fisik. Hal ini adalah dalam

rangka pengamanan jauh ke masa depan perairan tersebut.

Dewasa ini terdapat banyak dispersant yang dapat dibuktikan tidak meracuni kehidupan laut, tetapi efek jangka panjang hingga kita masih terus menyelidiki. Hal ini perlu diadakan dalam kondisi dan situasi di Indonesia agar data yang diperoleh dapat diandalkan. Tujuan penggunaan dispersant antara lain :

- 1). Mempercepat derajat biodegradasi minyak
 - 2). Mencegah pengotoran dan pencemaran kehidupan laut
 - 3). Mencegah kematian burung laut
 - 4). Mengurangi bahaya kebakaran
 - 5). Mencegah terbentuknya gumpalan-gumpalan minyak (tar lumps)
-

BAB 3

MASALAH PENCEMARAN AKIBAT TUMPAHAN
 MINYAK DI LAUT DAN DASAR HUKUM
 PENANGGULANGANNYA

3.1. Beberapa kasus tumpahan minyak:

Sewaktu Torrey Canyon pada bulan Maret tahun 1967 kandas dan tenggelam di pantai Cornwel (Inggris) serta menyebabkan pencemaran yang mengehebohkan dunia Barat. Kebanyakan dari kita menganggap bahwa kejadian tersebut sangat menarik akan tetapi masih jauh. Baru setelah dalam bulan Januari tahun 1975 kapal tanker "Showa Maru" kandas di Selat Singapura dan menyebabkan pencemaran di perairan Indonesia, kita tersentak bangun dan sadar bahwa juga di halaman rumah kita orang lain dapat mencemar-kannya. ¹⁾

Showa-Maru waktu itu kandas di Buffalo Rock (Wilayah Republik Indonesia) dan membocorkan kurang lebih 3000 - 4000 ton minyak mentah ke laut. Kerugian yang ditimbulkan oleh kejadian tersebut diperkirakan sekitar 13,5 juta US\$, di fihak Indonesia saja, belum terhitung difihak Singapura dan Kerajaan Malaysia. ²⁾

Kapal Showa-Maru adalah milik perusahaan Jepang yang bernama Taiheiyo Kaiun Co. Ltd. Tokyo dengan bobot mati sebesar 273.698 metrik ton. Adapun posisi kapal pada saat kandasnya

- 1). P.L Countrier, Pencemaran laut, Pertamina, Jakarta, tahun 1976, hal. 1.
- 2). I b i d .

adalah : 01.09.24 L.U/103. 48'06' B.T. Kapal tanker raksasa Showa-Maru bertolak dari Rasnatura (Teluk Parsi) dengan membawa muatan berupa minyak mentah dengan jenis Murben, Berri dan Arabian Light Crude sebanyak 232.339 metrik ton dengan tujuan Jepang. 3)

Setahun kemudian di tempat yang lain pada tanggal 15 Desember 1976 jam 06.00 Eastern Standard Time, kapal tanker Argo Merchant dengan muatan sebanyak 7.700.000 gallons Fuel Oil nomor 6 telah terdampar di pantai Fishing Rip di sebelah Tenggara Nantucket Island. Walaupun berbagai usaha telah dilakukan untuk melayarkan kembali tetapi ternyata pada tanggal 21 Desember jam 08.35 kapal Argo Merchant terbelah dua setelah mengalami kebocoran beberapa saat sebelumnya angin kencang dan arus laut yang tidak menguntungkan merupakan faktor penentu dari terbelah duanya kapal tanki ini. Namun demikian walaupun tempat kandasnya kapal ini pada tempat penangkapan ikan yang ramai dan berseberangan dengan pantai yang merupakan tempat para nelayan. 4)

Dua tahun kemudian di tempat yang lain pada tanggal 16 Maret 1978, kapal tanki raksasa Amoco-Cadiz dengan negara registrasi Liberia, berbobot mati 233.680 ton mengangkut 220.000 ton minyak mentah, menderita kerusakan kemudi disekitar 13 Km. sebelah Utara Lied'Quessan. Kapal ini berlayar dari Khard Island menuju Europort, Holland dan singgah di Limze Bai di pantai

3). DR. Komar Kantaamadja, Ganti Rugi Internasional Pencemaran minyak di laut, Alumni, Bandung, 1981, hal. 93.
 4). I b i d , hal. 91.

Selatan Inggris untuk menurunkan sebagian dari muatannya. Pada jam 22.04 setelah melakukan berbagai usaha dan mengalami berbagai bantuan yang tidak berhasil Amoco-Cadiz kandas dalam keadaan air laut pasang pada karang Men Gouven sekitar 2 Km. dari Portsall. Pada saat laut surut, Amoco-Cadiz terbelah dua dan memecahkan 4 dari 15 tankinya dan menumpahkan 58.000 minyak mentah jenis Light Arabian Crude yang diangkutnya. Dalam tempo 24 jam tumpahan minyak telah menyebar sepanjang 100 Km. dengan lebar 10 Km. Di pantai tumpahan tersebut menyebar dan makin meluas. Beberapa hari kemudian angin kencang dan laut yang pasang menyebabkan Amoco-Cadiz pecah lagi, minyak yang tersisa dalam tanki Amoco-Cadiz adalah sekitar 35.000 ton saja. Tumpahan tersebar di pantai sepanjang 200 Km. Tumpahan menutupi oyster beds yang luas dan pantai-pantai utama yaitu tempat-tempat rekreasi.

3.2. Kerugian-kerugian Akibat Tumpahan Minyak:

Akibat dari tumpahan minyak senantiasa mengancam kelestarian lingkungan laut dari waktu ke waktu. Ekosistem dari suatu lingkungan laut terganggu kelestariannya akibat tumpahan minyak ke laut.

Akibat dari tumpahan tersebut dapat berupa berbagai bentuk dari yang paling berat berupa suatu kematian yang langsung terhadap organisme laut tersebut sampai kepada berbagai akibat yang tidak mematikan dengan langsung yang sering kali baru dapat diketahui setelah berlangsung jangka waktu yang tertentu.

Adapun akibat yang lainnya yang baru dapat diketahui setelah berlangsung jangka waktu yang lebih lama lagi atau dimasukkannya ke dalam golongan kerusakan ekologis. Dalam hubungan ini perlu dicatat, bahwa walaupun dalam pengertian ekologi adalah mencakup pengertian yang lebih luas, sehingga akan termasuk ke dalamnya, misalnya dari masalah kematian plankton berubahnya komposisi species plankton, disamping kerusakan mangrove dan pohon-pohonan pantai sebagai tempat bertelur dan bersemainya ikan dan udang hingga terjadinya erosi pantai. Pengertian kerusakan ekologis yang demikian luasnya masih belum bisa dipertanggungjawabkan berdasarkan pengertian umum.

Ada suatu hal yang perlu kita perhatikan yaitu mengadakan suatu penelitian untuk mengetahui keadaan daerah yang menjadi korban limpahan minyak dari waktu ke waktu. Hal ini terutama mengetahui dan memonitor keadaan lingkungan laut tersebut dari saat ke saat yang akan menentukan besarnya kerusakan langsung dan kerusakan yang tidak langsung serta kerusakan ekologis.

Yang dimaksud dengan kerugian langsung adalah kerugian yang terjadi pada saat tumpahan minyak terjadi atau beberapa saat setelah tumpahan itu. Di dalam kita melakukan penentuan dari besarnya kerusakan dan karenanya juga secara tidak langsung menentukan besarnya jumlah biaya yang dikeluarkan dan kerugian yang diderita, maka kerugian ini merupakan kerugian tumpahan minyak yang paling sederhana. Hal ini disebabkan bukan saja karena kita menghitung angka-angka pengeluaran rill

yang dilakukan selama masa pencegahan, melainkan juga penggunaan sampai saat dimana kerugian-kerugian yang tampak dapat dihitung.⁵⁾

Sedang kerugian tidak langsung dimaksudkan kerugian yang baru dapat ditetapkan beberapa saat waktu setelah terjadinya tumpahan minyak, yaitu setelah dilakukanya suatu survai ekologis yang tidak jarang harus dilakukan secara periodik di wilayah tumpahan serta wilayah lain yang terkena pencemaran, khususnya mengenai kerugian-kerugian dan kerusakan organisme laut dan pantai pada umumnya maka akan ternyata bahwa penentuan kerusakan dan pada suatu penentuan ganti rugi tumpahan minyak tidak sederhana seperti menentukan ganti rugi pada umumnya.

3.3. Dasar Hukum Pencegahan Dan Penanggulangan Tumpahan Minyak

Meskipun pengertian hukum tentang pencemaran lingkungan laut, baru pada waktu sekarang dianggap telah membentuk suatu kesatuan perangkat azas-azas dan ketentuan-ketentuan dalam bidang pencegahan dan penanggulangan pencemaran lingkungan laut, namun akhirnya telah jauh berada di zaman sebelum perang dunia.

Di berbagai negara maju sejak tahun 1899 telah dikenal Refuse Act, dan Oil Pollution Act. Seperti yang kami kemukakan sebelumnya bahwa bahaya dari akibat pencemaran dari suatu tumpahan minyak dapat mengancam terhadap perikehidupan tumbuh-tumbuhan, hewan dan manusia. Atau secara langsung mengancam kehidupan marine (oceanic) life dan oceanic ecosystem yang secara 5). I b i d, hal. 102.

berantai dapat membahayakan mata rantai kehidupan di bola bumi ini.

Dalam hal pencegahan dapat dikelompokkan ke dalam usaha usaha antara lain :⁶⁾

- 1). Usaha melalui pendidikan, baik formil, nonformil maupun in-formil.
- 2). Usaha melalui penyuluhan dan penerangan, baik kepada industri, calon pencemar atau kepada masyarakat luas.
- 3). Usaha melalui pengaturan dan pembuatan undang-undang termasuk segala sanksi hukumnya, aparat pengontrol.

Sedang dalam hal penanggulangan di sini adalah langkah-langkah apa yang perlu diambil bila pada suatu tempat terjadi pencemaran secara besar-besaran dalam waktu yang relatif singkat.⁷⁾ Misalnya kasus kandasnya kapal tanker Showa-Maru di Selat Singapura bulan Januari 1975 yang lalu. Mengingat potensi terbesar kemungkinan pencemaran secara besar-besaran di perairan Indonesia adalah berasal dari minyak.

Jika terjadi tumpahan minyak harus dinilai setempat bagaimana derajat pencemaran dan keadaan medan tempat tersebut atas dasar monitoring ini barulah dapat digerakkan operasi pembersihan yang tepat inipun jika cuaca mengizinkan. Namun demikian tindakan pada saat pertama dari suatu kejadian tumpahan minyak sangat menentukan suksesnya suatu operasi pembersihan. Dengan kata lain gerakan pembersihan tersebut ofensif dan jangan defensif.

- 6). B P H N, Seminar Segi-segi Hukum Dari Pengelolaan Lingkungan Hidup, Binacipta, Bandung, L976, hal. 153.
- 7). I b i d, hal. 155.

Sikap yang defensif akan mengakibatkan minyak sempat menjalar luas sehingga biaya operasi menjadi sangat mahal.

Walaupun tidak terdapat pengaturan yang secara tegas mengatur tentang pencemaran lingkungan laut, di sana-sini dijumpai berbagai ketentuan yang pada pokoknya mengatur mengenai azas-azas pokok tentang pencegahan dan penanggulangan pencemaran, misal - nya : ⁸⁾

- 1). Het Reeden Reglement 1925 (Stb. No. 550/1925 seperti diubah dan ditambah dengan stbl. 237/1927 dan stbl. 381/1930.
- 2). Loodsdient-Ordonantie 1927 (stbl. No. 62/1927).
- 3). Petroleum Opslag - Ordonantie 1927 (Stbl. 199/1927).
- 4). Petroleum Opslag Verordening 1927 stbl. 200/1927 (seperti diubah dan ditambah beberapa kali)
- 5). Petroleum Vervoer Ordonantie, 1927.
- 6). Petroleum Vervoer Verordening 1928 (seperti yang diubah dan ditambah).
- 7). Mijn Politie Reglement 1930 (stbl. 341/1930). Peraturan ini mewajibkan kepada perusahaan minyak bumi untuk mecegah terjadinya pencemaran lingkungan khususnya tumpahan ke terusan dan sungai.

Sejalan dengan kemajuan teknologi maka sistem pencegahan dan penanggulangan pencemaran minyak di laut terus dikembangkan, bukan hanya sudut teknisnya saja tetapi juga melalui peraturan seperlunya. Maka dunia minyak Indonesia merasa perlu untuk

8). DR. Koma Kantaatmadja, Ganti rugi Internasional Pencemaran minyak di laut, Alumni, Bandung, 1981, hal. 46.

menegaskan dan meresmikan beberapa peraturan yang mengatur masalah pencemaran oleh minyak secara khusus yaitu : ⁹⁾

- 1). Peraturan Menteri Pertambangan No. 04/p/M/Pertambangan/1973 tanggal 22 Maret 1973 tentang pencegahan dan penanggulangan dalam kegiatan eksplorasi dan/atau eksploitasi minyak dan gas bumi.
- 2). Peraturan-peraturan Umum Lingkungan Pertamina yang ditetapkan oleh DIRUT Pertamina dengan SK 390/Kpts/DR/DU/1974 tanggal 6 Maret 1974.
- 3). Peraturan Pemerintah Republik Indonesia No. 17 tahun 1974 tentang pengawasan pelaksanaan Eksplorasi dan Eksploitasi minyak dan gas bumi.

Sungguh menonjol bahkan mungkin dapat dipakai sebagai contoh, terdapat beberapa peraturan daerah dan perusahaan, yang telah dikeluarkan secara khusus sebagai peraturan pencegahan dan penanggulangan pencemaran, khususnya pencemaran lingkungan laut, seperti : ¹⁰⁾

- 1). Peraturan Daerah Khusus Ibukota Jakarta-raya No. 12/1971 tentang pencegahan Pengotoran Udara, Air dan Lepas Pantai dalam Wilayah DKI Jakarta.
- 2). Surat Keputusan Gubernur Kepala Daerah Khusus Ibukota Jakarta tentang Larangan bagi kapal-kapal tanki untuk membuang minyak ke atas permukaan Air di sekeliling Gugusan Pulau seribu.

⁹⁾). P.L. Countrier, Op. Cit. hal. 6

¹⁰⁾). B P H N, Op. Cit. 129.

3). Peraturan Umum Pencegahan Pencemaran, Direktur Umum Pertamina yang berlaku bagi kegiatan-kegiatan Pertamina dan Kontraktor-kontraktornya.

Dalam konvensi hukum laut PBB tahun 1982 (United Nations-Convention On The Law Of The Sea - UNCLOS III) telah diatur pula mengenai pencegahan dan penanggulangan pencemaran lingkungan laut. Di dalam Article 207 (1) yang berbunyi :

"States shall adopt laws and regulation to prevent, reduce and control pollution of the marine environment from land-based sources, including rivers estuaries, pipelines and outfall structures, taking into account internationally agreed rules , standards and recommended practices and procedures"

Ketentuan tersebut di atas menjelaskan bahwa negara-negara harus menetapkan peraturan perundang-undangan untuk mencegah, mengurangi dan mengendalikan pencemaran lingkungan laut dari sumber daratan termasuk didalamnya sungai-sungai, kuala-kuala , pipa-pipa dan bangunan pembuangan, dengan memperhatikan ketentuan dan standar-standar Internasional yang telah disetujui serta-praktek-praktek dan proseduryang telah dianjurkan.

Dalam pada itu, konvensi ini menyebutkan pula pencegahan pencemaran yang berasal dari kegiatan di kawasan, seperti yang terdapat dalam Article 209 (2) yang berbunyi sebagai berikut :

"Subject to relevant provisions of this section , states shall adopt laws and regulations to prevent reduce and control pollution of the marine environment from activities in the area undertaken by , vessels, instalations, structures and other devices flying their flag or of their regestry or operating under their authority, as the case may be -

the requirements of such laws and regulations shall be no less effective than the international rules regulations and procedures referred to in paragraph one"

Dari ketentuan tersebut di atas, dapatlah ditarik penterian bahwa negara-negara diharuskan untuk menetapkan peraturan perundang-undangan untuk mencegah, mengurangi dan mengendalikan pencemaran lingkungan laut dari kegiatan-kegiatan di kawasan yang disebabkan oleh kendaraan air, instalasi-instalasi, bangunan-bangunan dan alat peralatan di bawah benderanya atau yang terdaftar atau yang bergerak di bawah kekuasaannya, sebagaimana halnya menunjukkan ketentuan-ketentuan dari peraturan perundang-undangan termaksud.

Lebih lanjut konvensi ini menyebutkan bahwa negara-negara diharuskan untuk menetapkan peraturan perundang-undangan untuk mencegah, mengurangi dan mengendalikan pencemaran lingkungan laut karena dumping. Hal ini dapat kita lihat di dalam Article 210 - ayat: 1, yang berbunyi sebagai berikut :

"States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment by dumping!"

Dalam pada itu, negara-negara yang bertindak melalui organisasi-organisasi Internasional yang berkompeten atau konperensi diplomatik yang umum, harus menetapkan ketentuan-ketentuan dan standar-standar Internasional untuk mencegah, mengurangi dan mengendalikan pencemaran lingkungan laut yang berasal dari kendaraan air dan menggalakkan route diterimanya dengan cara yang sama di mana perlu, dari pengaturan-pengaturan pelayaran yang

dimasudkan untuk memperkecil ancaman kecelakaan yang dapat menyebabkan pencemaran lingkungan laut, termasuk garis pantai dan kerusakan pencemaran terhadap kepentingan-kepentingan yang berkaitan dari negara-negara pantai. Hal ini dapat kita lihat di dalam Article 211 ayat : 1, yang berbunyi sebagai berikut :

"States, acting through the competent international organization or general diplomatic conference , shall establish international rules and standards to prevent, reduce and control pollution of the marine environment appropriate, of routeing systems designed to minimize the threat of accidents which might cause pollution damage to the related interest of coastal states. Such rules and standards shall, in the same manner, be re-examined from time to time as necessary."

Lebih lanjut, Article 211 ayat : 2 menjelaskan bahwa negara-negara diharuskan pula untuk menetapkan peraturan perundangan untuk mencegah, mengurangi dan mengendalikan pencemaran lingkungan laut oleh kendaraan air yang mengibarkan bendera atau terdaftar di negaranya. Peraturan perundangan yang dimaksud harus sekurang-kurangnya mempunyai kekuatan yang sama dengan ketentuan-ketentuan dan standar-standar Internasional yang diterima secara umum dan yang dibentuk melalui organisasi-organisasi Internasional yang kompeten atau melalui konferensi diplomatik yang umum. Article 211 ayat : 2, dapat kita lihat di dalam teksnya sebagai berikut :

"States shall adopt laws and regulations for the prevention, reduction and control of pollution of the marine environment from vessels flying their flag or of their registry. Such laws and regulations shall at least have the same effect as that of generally accepted international rules and

standards established through the competent international organization or general diplomatic conference".

Demikianlah beberapa peraturan mengenai pencegahan dan penanggulangan pencemaran lingkungan laut, baik sebelum zaman kemerdekaan maupun sesudah kita merdeka, baik peraturan-peraturan yang berlaku di wilayah Indonesia maupun peraturan-peraturan bersifat Internasional ataupun konvensi Internasional.

BAB 4

PENGATURAN MASALAH KOMPENSASI

4.1. Aturan Hukum Nasional:

Pembicaraan tentang ganti rugi tidak bisa dipisahkan dari tanggungjawab pencemar itu sendiri. Pasal 21 dari Undang undang No. 4 tahun 1982 menegaskan :

"Dalam beberapa kegiatan yang menyangkut jenis sumberdaya tertentu tanggungjawab timbul secara mutlak perusak dan atau pencemar pada terjadinya perusakan dan atau pencemaran lingkungan hidup yang mengaturnya diatur dalam peraturan perundangan yang bersangkutan".

Pasal itu mengandung prinsip "strict liability" atau menurut istilah Prof. Komar Kantaatmadja azas tanggungjawab mutlak.¹⁾ Atau menurut Prof. Munadjat Danusaputro, azas tanggungjawab secara langsung dan seketika,²⁾ yaitu kewajiban membayar ganti rugi yang timbul seketika/segera terjadinya kerugian, dengan tidak mempersoalkan salah - tidaknya penyebab kerugian. Akan tetapi menurut DR. Kusnadi Hardjasoemantri menyatakan bahwa : "dalam beberapa kegiatan yang menyangkut sumberdaya tertentu berarti bahwa bertanggungjawab mutlak itu tidak berlaku secara umum. Peraturan perundang-undangan akan mengatur lebih lanjut jenis dan katagori kegiatan apa saja yang akan terkena ketentuan yang termaksud.³⁾

- 1). DR. Komar Kantaatmadja, Op. cit. hal. 139.
- 2). Munadjat Danusaputro, Hukum Lingkungan II, Binacipta, Bandung 1981, hal. 233.
- 3). Kusnadi Hardjasoemantri, Prospek Hukum Lingkungan Di Indonesia, Malang, 1982, hal. 14.

BAB 4

PENGATURAN MASALAH GANTIRUGI

4.1. Aturan Hukum Nasional:

Pembicaraan tentang ganti rugi tidak bisa **dipisahkan** dari tanggungjawab pencemar itu sendiri. Pasal 21 dari Undang undang No. 4 tahun 1982 menegaskan :

"Dalam beberapa kegiatan yang menyangkut jenis sumberdaya tertentu tanggungjawab timbul secara mutlak perusak dan atau pencemar pada terjadinya perusakan dan atau pencemaran lingkungan hidup yang mengaturnya diatur dalam peraturan perundangan yang bersangkutan".

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Atau menurut Prof. Munadjat Danusaputro, azas tanggungjawab se -
cara langsung dan seketika,²⁾ yaitu kewajiban membayar ganti
rugi yang timbul seketika/segera terjadinya kerugian, dengan
tidak mempersoalkan salah tidaknya penyebab kerugian. Akan
tetapi menurut DR. Kusnadi Hardjasoemantri menyatakan bahwa :
"dalam beberapa kegiatan yang menyangkut sumberdaya tertentu ber -
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maksud.³⁾

1). DR. Komar Kantaatmadja, Op. Cit. hal. 139.

2). Munadjat Danusaputro, Hukum Lingkungan II, Binacipta, Bandung 1981, hal. 233.

3). Kusnadi Hardjasoemantri, Prospek Hukum Lingkungan Di Indone - sia, Malang, 1982, hal. 14.

Sistem pertanggungjawaban yang demikian, adalah merupakan penyimpangan sistem ganti rugi penuh (Absolut liability) yang dikenal dalam hukum perdata kita dengan menggunakan pola dasar perbuatan melanggar hukum yang menimbulkan kerugian pada fihak lain (Tortius Liability). Sistem ini berdasarkan adanya pertanggungjawaban pada kesalahan (Liability based of fault). Berdasarkan azas hukum ini, bilamana orang akan menuntut ganti kerugian, maka ia akan berkewajiban membuktikan terlebih dahulu bahwa tindakan fihak yang lain menimbulkan kerugian padanya.

Kewajiban untuk membuktikannya, pertama-tama pada fihak yang ingin menuntut ganti kerugian. Apabila tidak berhasil membuktikannya, tuntutan ganti rugi tidak akan dipenuhi.

Mengapa dalam kasus-kasus pencemaran dipergunakan sistem "strict liability" ini ? Sebenarnya ada beberapa pertimbangan dalam hal ini. Pertama-tama prinsip "Liability based of fault" yang digunakan mengandung proses yang memberatkan penderita. Ia-baru akan memperoleh ganti kerugian apabila berhasil membuktikan kesalahan dari fihak tergugat. Sedangkan kenyataan dalam kasus pencemaran kebanyakan penderita/penggugat tidak memahami tingkat teknologi modern, sedangkan pada fihak lain tergugat adalah industriawan/usahawan menguasai informasi tingkah laku dari industri yang dikelolanya dengan produksi yang dihasilkan, jadi penggugat selalu berada dalam posisi yang lemah yang tidak akan mungkin melaksanakan tuntutannya karena berhadapan dengan fihak tergugat yang mempunyai posisi kuat.

Kemudian Curson menyebutkan ada beberapa alasan mengapa dipergunakan prinsip "strict liability" (dalam hukum pidana), sebagai berikut : ⁴⁾

- 1). Adalah sangat esensial untuk menjamin dipatuohnya peraturan tertentu yang dipergunakan untuk kesejahteraan masyarakat itu.
- 2). Pembuktian adanya kesalahan akan menjadi sangat sulit untuk pelanggaran yang berhubungan dengan kesejahteraan masyarakat.
- 3). Tingginya bahaya tingkat sosial yang ditimbulkan oleh perbuatan yang bersangkutan.

Prinsip "strict liability", di negara kita sudah mulai di-anut dengan diratifikasinya "International Convention on civil-liability for oil pollution damage" dan International Convention On The Establishment Of an International fund for Compensation of oil pollution damage (Brussel 1971) masing-masing dengan keputusan Presiden RI No. 18 dan No. 19 Tahun 1978.

Prinsip "strict liability" dalam International Convention On Civil Liability For Oil Pollution Damage, dikecualikan dalam hal-hal sebagai berikut : ⁵⁾

- 1). Jika kecelakaan timbul karena perang, persengketaan bersenjata perang saudara (Civil War), pemberontakan atau bencana alam yang tidak mungkin dihindari.
 - 2). Jika kecelakaan diakibatkan oleh perbuatan atau kelalaian fihak ketiga dengan maksud untuk menimbulkan kerugian tersebut.
- 4). Curson, L.B Criminal Law, Macdonald and evans, Plymouth, 1977 hal. 26.
 5). Abdurahman, S.H. Pengantar Hukum Lingkungan, Bandung, 1983, - hal. 105-106.

- 3). Jika kecelakaan timbul oleh perbuatan atau kelalaian dari korban sendiri. Dalam hal ini dimaksudkan untuk dapat dicakup dua kemungkinan yaitu :
- Kecelakaan disebabkan karena perbuatan atau kelalaian dari negara pantai yang bertanggungjawab atas terpeliharanya mercu suar dan alat navigasi lainnya.
 - Jika pemilik kapal dapat membuktikan bahwa kecelakaan timbul karena perbuatan atau kelalaian oleh fihak yang menderita kerugian sendiri.

Tidak terlepas dari pembicaraan tentang "strict liability" ini sebagaimana juga telah disinggung di atas adalah persoalan tentang sistem pembuktian yang dianut. Untuk keperluan tersebut biasanya dipakai apa yang dinamakan beban pembuktian terbalik , sebagai penyimpangan dari prinsip praduga tak bersalah yang banyak dianut sekarang.

Prof. Komar Kantaatmadja dalam disertasinya telah menyatakan perlunya diciptakan ketentuan perundang-undangan lingkungan hidup pada umumnya dan pencemaran pada khususnya beserta segenap ketentuan pelaksanaan yang mengandung azas tanggungjawab mutlak (strict liability) sebagai sendi pokoknya. ⁶⁾

4.2. Aturan Hukum Internasional:

Sebagaimana telah diuraikan di atas, maka di dalam hal azas ganti rugi yang dianut adalah prinsip tanggungjawab mutlak (strict liability), maka keharusan untuk sebelumnya membuktikan kesalahan pihak pelaku menjadi tidak diperlukan lagi, bahkan

⁶⁾ Komar Kantaatmadja, Op. Cit. hal. 140.

kewajiban membayar ganti rugi pada negara pantai (korban pencemaran laut) timbul seketika pada saat tumpahnya minyak di laut dan timbulnya kerugian.

Secara umum dapat dikemukakan bahwa pertanggungjawaban Internasional adalah kewajiban dari suatu negara yang karena kesalahannya telah menimbulkan kerugian pada pihak lain untuk memperbaiki kerusakan termaksud. Agar dapat meneliti apakah kewajiban ini melekat pada negara yang bersangkutan, harus diperhatikan terlebih dahulu tentang adanya perjanjian (Commitment) terlebih dahulu yang telah dibuatnya. Dalam hal terdapat perjanjian sedemikian, maka kita berbicara tentang adanya suatu pelaksanaan dari hak dan kewajiban yang timbul dari perjanjian tersebut, sedangkan dalam tiadanya perjanjian terlebih dahulu maka yang akan merupakan petunjuk adalah hukum kebiasaan Internasional (Customary law) dan prinsip-prinsip umum hukum Internasional.

Keadaan yang disebutkan pertama dapat berupa suatu perjanjian bilateral maupun multilateral. Perjanjian multilateral dapat kita lihat "United Nations Convention On The Law Of The Sea" atau Konvensi Hukum Laut Internasional PBB tahun 1982, yang sering disebut UNCLOS - III. Konvensi ini dihadiri oleh 151 negara dengan rincian : 130 negara yang setuju, 4 negara yang menentang dan 17 negara yang abstain.

Di dalam Article 235 ayat : 1, dijelaskan bahwa negara bertanggungjawab untuk pemenuhan kewajiban-kewajiban Internasional berkenaan dengan perlindungan dan pelestarian

lingkungan laut. Mereka harus memikul kewajiban ganti rugi sesuai dengan hukum Internasional. Hal ini dapat kita lihat di dalam teksnya (Article 235 ayat: 1, UNCLOS III), yaitu :

"States are responsible for the fulfilment of their international obligations concerning the protection and preservation of the marine environment. They shall be liable in accordance with international law".

Lebih lanjut konvensi ini, di dalam Article 235 ayat : 2 menjelaskan bahwa negara-negara harus menjamin tersedianya upaya menurut sistem perundang-undangan untuk diperolehnya ganti rugi yang segera dan memadai atau bantuan lainnya bertalian dengan kerusakan yang disebabkan pencemaran lingkungan laut oleh orang perorangan atau oleh badan hukum di bawah yurisdiksi mereka. hal ini dapat terlihat di dalam teksnya sebagai berikut :

"States shall ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction".

Dalam pada itu, untuk menjamin ganti rugi yang segera dan memadai bertalian dengan kerugian yang disebabkan oleh pencemaran lingkungan laut, negara-negara harus bekerjasama melaksanakan hukum Internasional yang berlaku dan untuk pengembangan selanjutnya hukum Internasional yang berkenaan dengan tanggungjawab dan kewajiban gantirugi untuk menetapkan mengenai kompensasi untuk kerusakan serta penyelesaian sengketa yang timbul, dimana perlu mengembangkan kriteria dan prosedur-prosedur pembayaran ganti-rugi yang memadai seperti halnya asuransi wajib atau dana

kompensasi. Uraian tersebut di atas dapat kita lihat di dalam teks Article 235 ayat : 3, sebagai berikut :

"With the objective of assuring prompt and adequate compensation in respect of all damage caused by pollution of the marine environment, states shall co-operate in the implementation existing international law and the further development of international law relating to responsibility and liability for the assessment of and compensation for damage and the settlement of related disputes, as well as, where appropriate, development of criteria and procedures for payment of adequate compensation, such as compulsory insurance or compensation funds".

4.2.1. Brussel Convention On Pollution Damage The Sea By Oil 1969 (Konvensi-konvensi Brussel mengenai kerugian yang ditimbulkan pencemaran laut oleh minyak).

Konvensi-konvensi ini merupakan perkembangan selanjutnya dari usaha IMCO yang telah ada dan ini merupakan konvensi-konvensi yang penting, khususnya mengenai pemberian ganti-rugi yang disebabkan oleh pencemaran laut oleh minyak.

Konvensi-konvensi secara keseluruhan seutuhnya mengatur mengenai kerusakan atau kerugian (damage) yang timbul pada negara pantai karena pencemaran laut yang disebabkan oleh kapal tanker yang mengalami kecelakaan di laut (Marine Casualty), terutama yang kandas atau tenggelam. ⁷⁾

Konvensi-konvensi ini adalah hasil dari konferensi diplomatik mengenai kerugian yang disebabkan pencemaran laut oleh minyak (Pollution Damage of the sea by oil) yang berlangsung
7). St. Munadjat Danusaputro, Hukum Pencemaran dan merintis pola pembangunan hukum pencemaran Nusantara, 1978, Hal.100-10

tanggal 8 hingga 29 Nopember Tahun 1969, di Brussel Belgia. Bidang ini yaitu perlindungan lingkungan laut dari pencemaran yang berasal dari/atau diakibatkan oleh kapal tanker, merupakan bidang kegiatan yang relatif baru dari IMCO, yang terutama setelah konperensi stockholm tentang perlindungan hidup manusia pada tahun 1973 sangat maju pesat.

Mengingat pentingnya konperensi ini bagi Indonesia yang memiliki garis pantai yang sangat panjang dan di Selat Malaka merupakan lalu-lintas yang dilalui oleh kapal tanki yang teramai dan terbesar volumenya di dunia. Pemerintah telah mengirimkan delegasinya untuk turut serta dalam konperensi tersebut.⁸⁾

Ada suatu peristiwa penting yang mendorong terselenggaranya konperensi ini yaitu terjadinya kecelakaan Torrey Canyon,⁹⁾ dan bertambah besarnya ukuran kapal tanker sejak ditutupnya terusan suez, yang dimiliki industri.

Peristiwa Torrey Canyon ini sendiri telah menimbulkan persoalan yang sangat penting yaitu :¹⁰⁾

- 1). Apakah yang dapat dilakukan oleh suatu negara pantai bila terjadi kecelakaan kapal tanker ?
- 2). Siapakah yang betanggungjawab atas kerugian yang terjadi dalam peristiwa demikian dan bagaimana penyelesaiannya.
- 8). Mochtar Kusumaatmadja, IMCO dan pembinaan hukum pelayaran Nasional, Padjadjaran, Jilid VII, (Januari-April) 1979, No. 1-2. Hal. 14.
- 9). Ved.P.Nanda, The Torrey Canyon disaster some legal aspects Denver Law journal, Vol. No. 44, Tahun 1967, hal. 400.
- 10). Komar Kantaamadja, Beberapa masalah sekitar ganti-rugi pollusi minyak di laut, Padjadjaran, jilid I, tahun 1977 hal. 19.

Masalah tersebut di atas mendapat prioritas utama dari IMCO dalam persiapan konperensi tersebut, dua buah konvensi telah dihasilkan konperensi ini yakni : ¹¹⁾

- 1). International Convention Relation to Intervention on The seas in cases of oil pollution casualites (Public Law).
- 2). International Convention on Civil Liability for Oil Pollution Damage (Civil Law).

Kedua konvensi tersebut di atas tidak termasuk masalah bidang pelayaran atau masalah keselamatan di laut begitupun terhadap jaminan untuk tercapainya taraf keselamatan atau efisiensi pelayaran yang setinggi-tingginya sebagai tujuan pendirian IMCO, akan tetapi konvensi tersebut di atas hanya memberi hak kepada negara pantai untuk menindak dan melindungi kepentingan terhadap kapal tanker yang kandas ataupun tenggelam dan menyebabkan pencemaran minyak di wilayah sekitarnya yang berdekatan dengan pantai bahkan pada laut lepas. Hal ini dapat kita lihat dalam "International Convention Relation to Intervention on the hight in cases of oil pollution casualites", sedangkan "International Convention on Civil Liability for oil pollution damage" merupakan ketentuan-ketentuan yang mengharuskan kapal-kapal tanker untuk memberikan gantirugi kepada pihak lain, yang telah menjadi korban dari pencemaran laut. Sehingga dapat disimpulkan bahwa berlainan konvensi yang telah ada, maka konvensi Brussel tahun 1969 tersebut, telah melampaui ruang lingkup tugas IMCO.

Namun dipandang dari segi pengaturan/kodifikasi hukum

11). St. Munadjat Danusaputro, Op. Cit. hal. 112.

Internasional hal ini adalah wajar, mengingat ketentuan-ketentuan seperti inilah yang dibutuhkan secara rill oleh negara-negara pantai dan rakyat setempat/nelayan yang akan menderita, apabila terjadi suatu kecelakaan kapal tanker.

Baiklah sekarang akan diuraikan konvensi-konvensi tersebut satu persatu. Perlu diketahui sebelumnya bahwa konvensi pertama hanya dititikberatkan pada segi hukum publik Internasional, sedangkan konvensi yang kedua dititikberatkan pada segi hukum perdata Internasional, sehingga dikenal sebagai Civil law Convention.

1). International Convention Relation To Intervention On High In Cases Pollution Casualties (Public Law).¹²⁾

Ketentuan yang terpenting dalam konvensi ini sebagaimana terdapat dalam teksnya adalah sebagai berikut :

Article I.1 : "Parties to the present convention may take such measures on the high seas as may be necessary to prevent mitigate or eliminate grave danger to coast line or related interest from pollution of the sea by oil, follow upon maritime casualty or acts related to such casualty, which may reasonably be expected to resulting major harmful consequences".

Dari ketentuan tersebut di atas, dapatlah ditarik pengertian bahwa konvensi ini memberikan hak dan kewajiban kepada negara pantai yang terancam oil pollution damage untuk mengambil tindakan-tindakan pencegahan dan penyelamatan yang sejauh mungkin harus diusahakan terlebih dahulu sebelum mengadakan tindakan.

12). Shigeru Oda, The International Law of the Ocean Development, Leiden, Tahun 1972, hal. 467 - 475.

Dengan kata lain, apabila waktu memungkinkan maka perlu dibuat konsultasi dahulu diantara negara-negara yang bersangkutan sebelum tindakan pencegahan diambil. Tindakan yang diambil harus sebanding dengan bahaya sebenarnya yang mengancam, sebagaimana disebutkan dalam Article III (a) yang berbunyi :

"When a coastal state exercising the right to take measures in accordance with Article I the following provisions shall apply : (a) "Before taking any measures, a coastal state shall proceed to consultation with other state effected by the marine casualty particularly with the flag state or states".

Namun konvensi ini juga dalam hal sangat mendesak memberikan hak kepada negara pantai untuk melakukan tindakan pemusnahan terhadap kapal yang bersangkutan berikut muatannya dari perlindungan kepentingan dan kesejahteraan penduduk pantai, hal ini dapat terlihat di dalam Article III (d) yaitu :

"In cases of extreme urgency requiring measures to be taken immediately, the coastal state may take measures rendered necessary by the urgency of the situation, without prior notification or consultation or without continuing consultation already begun".

Untuk mencegah diambilnya tindakan-tindakan drastis demikian, oleh negara pantai terhadap kapal tanker yang mengalami kecelakaan secara tidak perlu dan berlebihan maka konvensi ini memuat ketentuan-ketentuan penyelesaian berupa prosedur "Conciliation" dan "Compulsory Arbitration". Untuk menjaga kepentingan si pemilik kapal dalam hal demikian seperti yang diatur di dalam Article VIII yang berbunyi :

"Any controversy between the parties as to whether measures taken under article I were in contravention of the provisions of the present convention

to whether compensation is obliged to be paid under article VI, and to the amount of such compensation shall if settlement by negotiation between the parties in valued or between the parties with the parties took the measures and the physical or corporate claimants has not been possible, and if the parties do not otherwise agree to submit upon request of any of the parties concerned to conciliation or, if conciliation does not succeed to arbitration, as set out in the annex to present convention".

Sedangkan gantirugikan harus diberikan jika ternyata bahwa tindakan yang diambil melebihi tindakan yang dianggap wajar dan perlu untuk mencapai tujuan itu, sebagaimana diatur dalam Article VI yakni :

"Any party which has taken measures in contravention of the provision of the present convention causing damage to others, shall be obliged to pay compensation to the extent of the damage caused by measures which exceed those reasonably necessary to achieve the end mentioned in article 1.

Bagian akhir konvensi ini memuat cara dan sistem implementasi dari konvensi, beserta tata kerja-sama yang harus dilaksanakan sekretariat jenderal IMCO, dengan pihak-pihak atau badan-badan yang lain yang berkepentingan dengan masalah ini di PBB.

2). International Convention On Civil Liability For Oil Pollution Damage (Civil Law).

Konvensi ini juga dikenal dengan Civil Liability Convention atau CLC tahun 1969, merupakan konvensi yang mengatur ganti-rugi polusi minyak di laut yang terpenting yang ada hingga saat ini. Konvensi ini berlaku terhadap :

- 1). Kapal yang mengangkut minyak dalam bulk sebagai cargo.
- 2). Minyak yang diangkut, termasuk katagori "persistent oil" , seperti crude oil, ful oil, heavy diesel oil, lubrycating oil dan whale oil. Baik diangkut sebagai cargo atau "bunker".

Ketentuan-ketentuan konvensi ini yang terpenting adalah sebagai berikut : Article III (1).¹³⁾

"Except as provided in paragraph and 3 of this article, the owner of a ship at the time of an incident, or where the incident consist of a series of occurrences at the time of the first such occurrences, shall be liable for any pollution damage caused by oil which has escaped or been discharged from the ship as a result of the incident".

Dengan perkataan lain konvensi ini mengharuskan kapal-kapal tanker untuk membayar ganti-rugi kepada pihak lain yang telah menjadi korban akibat kerugian yang timbul dari pencemaran laut tersebut.

Article III (2) : No Liability for pollution damage
shall attach to the owner if he proves that the damage (2a, 2b).

Article III (3) : If the owner proves that the pollution damage resulted wholly or partially either from an omission done with intent to cause damage, by the person suffered the damage or from the negligence of that person, the owner may be exonerated wholly or partially from his liability to such person.

Dengan demikian pemilik kapal dalam hal ini bila terjadi kecelakaan kapal tanker yang mengakibatkan bencana pencemaran dapat melepaskan tanggungjawab untuk mengganti kerugian apabila 13). I b i d, hal. 476 - 483.

ia dapat membuktikan bahwa :

- 1). Kecelakaan tersebut akibat korban peperangan yang terjadi atau terdapat "force majeure" (Article III. 2. (1)).
- 2). Kecelakaan tersebut adalah disebabkan oleh buruknya perambuan negara tempat terjadinya kecelakaan (Article III. 2 (c)).
- 3). Bencana itu terjadi karena tindakan yang disengaja ataupun karena kelalaian pihak yang mederita bencana tersebut, (Article III. 3).

Article V. 1 : "The owner of ship shall be entitled to limit his liability under this convention in respect of any one incident to an aggregate amount of 2,000 francs or each ton of ship's tonnage. However this aggregate amount shall not in any event exceed 210 million francs.

Article VII. 1 : "The owner of a ship registered in a contracting state and carrying more than 2,000 tons of oil in bulk as cargo shall be required to maintain insurance or other financial security, such as the guarantee of a bank or a certificate delivered by an inter compensation fund, in the sums fixed by applying the limit of liability prescribed in article V, paragraph 1 to cover his liability for pollution damage under this convention.

Article V. 2 : "A certificate attesting that insurance or other financial security is in force in accordance with the provision of this convention shall be issued to each ship. It shall be issued or certified by the appropriate authority of the state of the ship's registry after determining that the requirements of paragraph 1 of this article have been complied with.

Article VIII : "Rights of compensation under this convention shall be extinguished an action is brought there under within three years from the date when the damage occurred how ever, in no case-

shall an action be brought after six years from the date of the incident consists of a series of occurrences, the six years period shall run from the date first such occurrence".

Ketentuan di atas mengatur batas pertanggungjawaban tertinggi (Limit of liability) yang menyatakan bahwa pemilik kapal bertanggungjawab atas kerugian yang diakibatkan karena polusi minyak sebanyak 2.000 francs ataupun sekitar US \$ 14.4 juta (Article V. 1).

Hal ini dimaksudkan agar pemilik kapal tidak terlalu dirugikan untuk membayar ganti-rugi diluar jangkauan kemampuannya sehingga mengancam kebangkrutan perusahaan kapal tanker.

Konvensi ini juga mewajibkan kapal yang mengangkut lebih dari 2.000 ton minyak dalam bulk sebagai cargo untuk menutup asuransi atau jaminan keuangan lainnya, yang jumlahnya sesuai dengan batas pertanggunganjawab pembayaran ganti-ruginya (Article VII. 1). Manfaat ketentuan ini adalah negara peserta konvensi dapat mengetahui kemampuan finansial dari pihak penanggung atau pemilik kapal tanker, serta mendapat jaminan yang kuat bahwa penanggung atau pemilik kapal tenker tersebut sanggup dan diwajibkan untuk membayar ganti-rugi apabila terjadi pencemaran laut di wilayah perairan negara tersebut.

Sedangkan asuransi atau jaminan keuangan sedemikian harus dibuktikan dengan "sertifikat" yang harus dibawa serta dalam kapal (Article VII. 2).

Sedangkan penuntutan ganti-rugi itu harus diajukan dalam waktu tiga tahun sejak saat terjadinya kecelakaan kapal tanker.

Perlu diperhatikan secara khusus bahwa kewajiban untuk memberi ganti-rugi di dalam konvesi ini, adalah menyimpang dari prinsip-prinsip yang ada mengenai ganti-rugi dalam kecelakaan kapal di laut yang berlaku sebelumnya, adalah didasarkan atas azas "Liability based on fault", yaitu bahwa tanggungjawab adalah didasarkan pada kesalahan pihak pelaku yang harus dibuktikan lebih dahulu oleh pihak yang dirugikan.

Tetapi sekarang dalam jangkauan pertanggungjawaban konvensi ini menganut suatu prinsip "Strict Liability" artinya kewajiban membayar ganti-rugi yang timbul langsung setelah terjadi kerugian itu dengan tidak mempersoalkan salah atau tidaknya kapal tanker yang bersangkutan.

Hal ini dapat terlihat di dalam Amendement to Article dari konvensi CLC yang berbunyi sebagai berikut : ¹⁴⁾

"Paragraph 2 of article V should read as follows if the incident arose as a result of an act or omission of the owner done with intent to cause damage, the letter shall no longer entitled to avail himself of the limitation provided in paragraph 1 above"

"In paragraph 1 of article VI, replace in line 7 result of the owner's actual fault or privity by result of an act or omission of the owner done with intent to cause damage".

Disamping itu terdapat pula komentar dari delegasi belanda terhadap amendement to article V, ¹⁵⁾ pada persidangan Internasional legal Conference on marine Pollution damage 1969, tersebut yaitu sebagai berikut :

- 14). I M C O, Official Record of the International legal conference on marine pollution damage, 1969, london, 1973, hal.72.
- 15). I b i d, hal. 73.

"Where as the draft convention is based on strict liability of the ship owner with rather high limit, there is neither justification nor need to provide that the ship owner can not limit his liability in case the incident can be attributed to his own actual fault however small is the chain of causation of the incident the need is the less as international fund is constituted which will cover any damage for which ship owner is not liable under the present draft".

Bagi kepentingan nasional Indonesia, maka yang berazaskan strict liability ini dirasakan lebih menguntungkan dibandingkan dengan azas Liability based on fault mengingat :

- 1). Indonesia dalam proses deteksi maupun dalam pencegahan dan penanggulangan pencemaran lingkungan laut masih dalam taraf penguasaan teknologi sederhana, sehingga sulit membuktikan kesalahan kapal tanker asing yang mengalami kecelakaan dan mencemarkan wilayah perairan Indonesia.
- 2). Hal ini dapat mempercepat proses pembayaran ganti-rugi karena penyelesaian kasus pencemaran laut akibat kecelakaan kapal tanker yang merupakan kasus hubungan antar-negara dapat memakan waktu yang cukup lama.

Sedangkan kerugian konvensi ini bagi Indonesia mengingat adanya azas Reciprocitet (azas timbal balik) yang menadasi setiap perjanjian adalah sebagai berikut :

- 1). Indonesia dapat dituntut dan dikenakan suatu jumlah ganti-rugi yang cukup tinggi, apabila kapal tanker milik pemerintah Indonesia (Pertamina) mengalami kecelakaan kapal dan mencemarkan perairan negara asing yang turut menjadi peserta dalam konvensi ini.

2). Adanya batas pertanggunganjawab yang tertinggi dari pemilik kapal tanker, dapat merugikan Indonesia dikemudian hari, apabila kapal tanker raksasa asing melewati Selat Malaka mengalami kecelakaan sehingga mengakibatkan kerugian materil dan kerugian ekologis yang jumlahnya dapat melebihi batas tanggungjawab, sebagaimana diatur dalam "fund convention" (konvensi dana Internasional), tahun 1971. ¹⁶⁾

Sehubungan dengan ganti-rugi yang harus dibayar oleh pemilik kapal tanker, dalam hal terjadinya pollusi minyak di laut , dapat dikemukakan pola ganti-rugi sebagai berikut :

- 1). Protection and Indeminity Insurance, yang biasanya mengambil patokan berdasarkan CLC on oil pollution damage, Brussel 1969 dengan jumlah maksimum sebanyak US \$ 14.400.000.-
- 2). Ganti-rugi pollusi minyak di laut berdasarkan pola TOVALOP dengan pertimbangan ganti-rugi sebanyak US \$ 100. untuk setiap gros dengan ketentuan jumlah tertinggi tidak melebihi US \$ 10.000.000.-
- 3). Ganti-rugi pollusi minyak di laut dengan CRISTAL, sistem ini memberikan ganti-rugi tertinggi, yang tidak melebihi dari US \$ 30.000.000.-

Demikianlah beberapa aturan mengenai kompensasi yang lahir dari berbagai konvensi Internasional yang diadakan oleh negara-negara.

16). MD. Silalahi, Legal aspect of marine pollution in Indonesia Jakarta, tahun 1977, hal. 85.

BAB 5

P E N U T U P

5.1. Simpulan

Dari keseluruhan pembahasan terdahulu akhirnya dapat diperoleh kesimpulan yaitu sebagai berikut :

- 1). Pengaturan mengenai Kompensasi akibat pencemaran minyak di laut menggunakan azas tanggungjawab mutlak (Strict Liability). untuk perkara terhadap kerugian-kerugian pencemaran lingkungan laut.
- 2). Terdapatnya ketidak sederajatan khususnya tingkatan kekuatan ekonomi dari pihak-pihak yang terlibat dalam suatu perkara gantirugi tumpahan minyak. Biasanya di satu fihak berupa suatu perusahaan besar dan kuat yang tidak jarang berwujud multi-national corporation ataupun bagian (subdivision) dari padanya sebagai pelaku pencemaran lingkungan laut. Di lain fihak negara pantai, selaku korban pencemaran dan karenanya menderita kerugian baik langsung maupun tidak langsung akibat pencemaran minyak tersebut.
- 3). Bahwasanya sangat sukar untuk dapat membuktikan secara teknis maupun secara hukum tentang adanya kesalahan pada fihak pelaku pencemaran untuk dijadikan unsur konstitutif bagi pertanggungjawaban kerugian yang terjadi pada pelaku pencemaran. Juga kesulitan sering dijumpai baik dalam menentukan besarnya

kerugian yang terjadi dan batas pertanggungjawaban kerugian-nya maupun pembagian pertanggungjawaban jika terdapat lebih dari satu pelaku pencemaran.

- 4). Dalam hubungan dengan pihak korban pencemaran lingkungan laut dirasakan keperluan untuk dapat segera menanggulangi akibat akibat dari pencemaran lingkungan laut itu yang sangat diperlukan untuk :
 - a. Menghindari penyebaran kerugian pencemaran lebih lanjut.
 - b. Meneruskan usaha-usaha yang terganggu bahkan mungkin terhenti akibat pencemaran tersebut, dan
 - c. Memberikan gantirugi yang wajar bagi korban-korban pencemaran yang berhak.
- 5). Tingkat teknologi kita yang terbatas dewasa ini baik dalam arti kata pemilikan peralatan, pemusatan dari peralatan yang terbatas dalam berbagai lokasi tertentu maupun dalam arti penyediaan tenaga yang cakap dan trampil untuk penanganannya yang dipertentangkan dengan kemajuan teknologi di satu pihak dan luasnya wilayah laut yang harus dijaga dan dipersiapkan kemungkinan penanggungan pencemarannya.
- 6). Dalam hubungan pola penyelesaian hukum yang dicari yaitu yang sebaiknya diterapkan untuk penyelesaian masalah gantirugi pencemaran akibat tumpahan minyak ternyata bahwa :
 - a. Pola penyelesaian dengan menggunakan ketentuan perbuatan melanggar hukum adalah tidak dapat diandalkan lagi untuk penyelesaian masalah gantirugi pencemaran minyak.

- b. Tiadanya yurisprudensi yang memberikan arah dan peluang penyelesaian perkara gantirugi pencemaran minyak di laut.

5.2. Saran

- 1). Terhadap gantirugi pencemaran laut sebaiknya diberlakukan sebagai kasus "sui generis", yaitu dengan menerapkan azas tanggungjawab mutlak (strict liability) pada pelakunya.
 - 2). Memberlakukan azas gantirugi penuh (absolut liability) bagi peristiwa tumpahan yang nyata-nyata memperlihatkan adanya faktor kesalahan.
 - 3). Perlu segera diciptakan ketentuan perundangan mengenai lingkungan hidup pada umumnya dan pencemaran pada khususnya beserta segenap ketentuan pelaksanaan yang mengandung azas tanggungjawab mutlak sebagai sendi pokoknya.
 - 4). Perlu ditetapkan suatu batas jumlah gantirugi tertinggi baik berdasarkan CLC, Funds, TOVALOP, CRISTAL maupun yang lainnya yang dianggap paling tepat bagi penanganan kerugian khususnya bagi berbagai lingkungan laut sesuai dengan penggunaannya.
-

LAMPIRAN - LAMPIRAN

DAFTAR KEPUSTAKAAN

- 1) Moctar Kusumaatmadja, Konvensi-konvensi IMCO dan pelayaran Nasional, prasaran yang disampaikan pada seminar-pelayaran nasional, Jakarta, 1970.
- 2) Kirdi Dipoyudu, Persoalan Selat Malaka, Lit.bang DFPLU-1976.
- 3) Komar Kantaatmadja, Beberapa masalah sekitar ganti ruang polusi minyak di laut, Padjadjaran, jilid VIII, 1977.
- 4) Wahyudi Wisaksono, Legal Aspects of Pollution the marine Environment by oil in Indonesia, Lemigas, 1978.
- 5) St. Munadjat Danusaputro, Hukum pencemaran dalam merintis pola pembangunan hukum pencemaran nusantara, seri hukum lingkungan, 1978.
- 6) Wahyudi Wisaksono, Pencemaran daerah pantai Indonesia - permasalahan, penanggulangan dan pengaturannya, lembaran publikasi lemigas, 1976.
- 7) Ved. P. Nanda, The Torrey Canyon disaster some legal aspects, Denver law Journal, Vol. No.44, 1967.
- 8) Hasjim Djalal, Masalah Selat Malaka/Singapura, Jakarta-1972.
- 9) John Columbus, International Law Of the Sea, London - 1970.
- 10) Konvensi London, Pollution Of the Sea by oil, 1954.

- 11) J. Barros dan B.M Johnston, International Pollution - Law, N.Y. London, 1974.
- 12) St. Munadjat Danusaputro, Astra Jaya, lemhanas, 1973.
- 13) Frank Haenchke, Cerman Aspects of an environmental police and Possible Consequences for developing countries, One word only, Tokyo, 1973.
- 14) St. Munadjat Danusaputro, "Masalah Yusantara dalam geopolik teknologi dan konstitusi laut dan samudera," buku V, Bandung, 1983.
- 15) Verne H. Scott, Ocean Pollution, Encyclopdia Americana Volume 23, 1972.
- 16) Bundangan Undang-undang di teknologi-ketentuan-ketentuan pokok-pokok lingkungan hidup.
- 17) St. Munadjat Danusaputro, Metoda Ilmiah-Komprehensif - Lemhanas, 1973.
- 18) G.J Broekis, Sources Of sea Pollution by Oil.
- 19) G. Moore, International and National Legislation and regulatory Institutions, FAO/SIDA/UN.
- 20) Dr. Hasjim Djalal, Perjuangan Indonesia Di bidang hukum laut, badan pembinaan hukum nasional, Binacipta, 1979.
- 21) P.L Countrier, Pencemaran laut, Pertamina, Jakarta, 1976.
- 22) DR. Komar Kantaatmadja, Canti rugi Internasional Pencemaran Minyak di laut, Alumni, Bandung, 1981.
- 23) BPHN, Seminar segi-segi hukum dari pengelolaan lingkungan hidup, Binacipta, Bandung, 1976.

- 24) Munadjat Danusaputro, Hukum Lingkungan II Nasional, -
Binacipta, Bandung, 1981.
- 25) Kusnadi Karjasoemantri, Prospek Hukum Lingkungan di
Indonesia, Malang, 1982.
- 25) Shigeru Oda, The International Law of the Ocean Develop-
ment, Leiden/sijhoff, 1972.
- 26) I M C O, Official Record of the International Legal
Conference on marine pollution damage, 1969, London, -
1973.
- 27) Daud Silalahi, Legal Aspect of marine of Pollution in-
Indonesia, Jakarta, 1977.



SEKRETARIAT MENTERI NEGARA
KEPENDUDUKAN DAN LINGKUNGAN HIDUP

SURAT KETERANGAN

Nomor : B- 67 /Ro.U/KLH/10/90

Kepala Biro Umum Sekretariat Menteri Negara KLH, menerangkan, sesuai dengan permohonan Dekan Fakultas Hukum Universitas "45" Ujung Pandang Nomor : A. 156/FH/U-45/IX/90, tanggal 25 September 1990 bahwa :

Nama : Muhammad Hatta
Pekerjaan : Mahasiswa
No. Mahasiswa : 4586060162
Jurusan : Hukum Internasional

Telah mengadakan pengumpulan data untuk bahan skripsi, pada Kantor Menteri Negara Kependudukan dan Lingkungan Hidup dengan materi bimbingan : Dr. Daud Silalahi.

Demikian agar maklum.

Sekretariat Menteri Negara
Kependudukan dan Lingkungan
Hidup

Plt. Kepala Biro Umum,



SURAT KETERANGAN RISET

NOMOR : 237 / Ris/Perpus/ X /1990/52.

Yang bertanda tangan dibawah ini, menerangkan bahwa :

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Tingkat : PROGRAM S1
Jurusan : HUKUM INTERNASIONAL
Alamat : JL. URIP SUMOHARJO Km.4
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Perpustakaan Badan Litbang Departemen Luar Negeri R I
di Jakarta, selama : ...3..... Hari/~~XXXXXX~~ guna mengumpulkan / Menghimpun data-data / buku-buku dalam rangka
penyusunan Skripsi yang berjudul :

" KOMPENSASI AKIBAT PENCEMARAN MINYAK DI LAUT MENURUT
HUKUM "

MEN LUAR NEGERI
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singamangaraja 73 - 75

SURAT KETERANGAN RISET

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Perpustakaan Badan Lit
di Jakarta, selama
pukulan / Menghimpuni
penyusunan Skripsi

" KOMPENSASI
HUKUM "

Date	Registration	Name of Ship	Type	Tonnage	Cause	Location	Comments
June 1968	-	Noi Ying Master George	Freighter	-	Collision	Offshore Singapore	
March 1968	Liberia	Shun Tai World Carrier	Carrier	-	Collision	1°12'00" N 103°51'11" E	Shun Tai sank
1969	NORWAY	Berge-Brogot Naïs	Tanker	-	Collision	1°9' N 103°45' E	Naïs sank
Aug. 1969	JAPAN	Bethlehem Showa Maru	-	-	Collision	1°17'08" N 104°10'03" E	Bethlehem sank
Dec. 1969	-	City Services Valley Forge ESSO Colon	Tanker	-	Collision	Offshore Singapore	
June 1971	Liberia	S.Niarchos	Tanker	212,350	Grazing	Takong Shoal, Oil spilled Phillip Channel	
June 1971	Kuwait	Arabiyah	Tanker	212,259	Grazing	Near Batu Berhantai	
Jan. 1972	Liberia	Kymo	-	-	Fire	Near Horsburgh lighthouse	
May 1972	Japan Singapore	Maigen Maru Prosperity	Tanker	202,540 18,779	Collision	15 km. ENE of St. John's Island	
June 1972	Liberia	J.Paul Getty	Tanker	227,355	Grazing	Pulau Takong Kechil	
June 1972	France	Myrtea	Tanker	214,352	Grounding	1/2 mile from Pulau Bukom	1,000 tons oil spilled

1) Daniel P. Finn, Wanayama CS - Oil Pollution from Tankers in the Straits of Malacca; East West Centre, 1979 p.12, 13, 14.

Dec. 1972	Japan	Shoen Maru	Tanker	-	-	Collision	lighthouse sank
Jan. 1973	Cyprus	Kyoro Maru	Tanker	-	-	Collision	Near north edge Ship caught fire
Jan. 1973	Liberia	Anthion Atlantic	Tanker	-	15,500	Collision	Near north edge Ship caught fire
March 1973	Liberia	Igare	Tanker	73,300 (?)	Grounding	Near Hoosdury	Oil leak
March 1973	Liberia	Pellinaion	Tanker	42,299	Grounding	1°06'30" N 103°40'30" E	Ship caught fire
March 1973	Liberia	King Agamenon	Tanker	85,284	Collision	1°40'00" N 102°42'00" E	Ship caught fire
March 1973	Greece	Messiniaki	Tanker	30,294	Collision	Near Pulau Bukom	180 tons of fuel leaked from Messiniaki
March 1973	-	Pnoi Eastern	Tanker	97,636			
March 1973	Indonesia	Giant Permina	Tanker	8,651			
March 1973	Liberia	J.Ed.Warren	Tanker	105,195	Grounding	Near Berhala Bank	Cargo of 96,000 tons of crude oil
1974		Great Loyalty	Tanker	15,410	Collision	16 km. SW of Singapore	Oswego Merchant caught fire
		Oswego Merchant	Tanker	52,888			
June 1974	Liberia	Anson Carnation	Tanker	34,972	Collision	OFF Port Klang, Malacca Straits	Anson had a cargo of crude oil; ships wedged together and drifting.
15 July 1974	Liberia	Panama	Tanker	11,745			
26 July 1974	Cyprus	Nikko Maru	Tanker	20,658 (?)	Collision	Near Tanjung Piai, off Singapore	Berge Queen
		Norway	Tanker	284,976			
28 Oct. 1974	Japan						

Name or Ship	Nationality	Type	Tonnage	Incident	Location
6 Jan. 1975	Japan	Showa Maru	237,698	Grounding	Buffalo Rock, off Singapore
16 Jan. 1975	Japan Liberia	Isuzugawa Maru Silver Palace	122,233 21,226	Collision	Outside of Singapore port limits
14 March 1975	-	Lastic Steamer	-	Fire	Malacca Straits Ships had cargo of asphalt and was in danger of exploding
5 Apr. 1975	Britain	Casual Steamer	-	-	1°12'04" N 103°50'54" E oil spilled
18 Apr. 1975	Japan Liberia	Mysella Tosa Maru Cactus Queen	212,759 42,790 152,035	Grounding Collision	1 mile south of St. John's Island Tosa Maru broke in two and sank
14 June 1975	Panama	Kowei Baru Monte Cristo	-	Collision	Eastern Roads, Singapore
30 June 1975	Panama	Liengku	-	Collision	Malacca Straits Ships sank with 300 tons of charcoal
17 July 1975	Japan Pakistan	Neissei Maru Ravi	237,586	Collision	1°15'03" N 104°09'03" E Neissei Maru had cargo of crude oil

DATE	COUNTRY	SEA	TYPE	TIME	LOCATION	CAUSE	TONS
3 Aug. 1975	Greece	Tolo Sea	Freighter	-	Fire	North Bank, Penang	10 tons Bunker C Fuel oil spilled.
1 Aug. 1975	Japan	Hongkong Island	Tankers	79,568 (?)	Collision	2°52' N 10°57' E	
Liberia							
2 Sept. 1975	Japan	Izumigawa Maru	Tanker	118,823	Collision	7 miles from Malacca Coast	
Indonesia		Djatimulia	Freighter	-			
4 Oct. 1975	Liberia	Seatiiger	Tanker	123,693	Collision, grounding	4.8 km. south of St. John's Island	
8 Oct. 1975	Greece	Kriti Sun	Tanker	123,484	Struck by lightning	Singapore Port	
1 Dec. 1975	Britain	Sachem	Tanker	29,905	Collision	Eastern anchorage,	
Poland		General Madalinski	Bulk Carrier	23,298		Singapore	
7 May 1976	Liberia	Margo	Freighter	-	Collision	Eastern anchorage,	
East Germany		Georg Handke	Freighter	-		Singapore	
26 July 1976	Britain	Forresbank	Freighter	-	Collision	Eastern anchorage,	
Greece		Mareva A.S.	Freighter	-		Singapore	
26 July 1976	Philippines	Diego Silang	Tanker	100,748	Collision	Off Johore coast, Malacca Straits	6,000 tons oil spilled
Soviet Union		Vyostok	Freighter	-		from Digo	
		Brazilian Faith	Tanker	300,000 (?)		Silang found over a large area and up rivers.	
25 Aug. 1976	Malaysia	Malaysia Raya	Passenger	-	Fire	Port Klang, Malaysia	

<u>Date</u>	<u>Registration</u>	<u>Name of Ship</u>	<u>Type</u>	<u>Tonnage*</u>	<u>Cause</u>	<u>Location</u>	<u>Comments</u>
2 Sept. 1976	Germany	m.v. Heita	Freighter	-	Grounding	Off Klang Coast, Malacca Straits	
6 Sept. 1976	Panama Greece	Soyakuze Marritza E.	Freighter Freighter	-	Collision	Off St. John's Island	
26 Oct. 1976	Italy Philippines Panama	Citti di Savona Philippine Star Esso Spain	Tanker Tanker Tanker	64,805 -	Collision	Eastern anchorage Singapore	Citizens Star had cargo of crude oil, 20,00 tons oil spilled.

* Unless otherwise stated or questioned, tonnage is in deadweight tons.

Source: Compiled from data provided by the Malacca Strait Council and from accounts in the New Straits Times.

LAMPIRAN - II

5 Oktober 1978

MEMORANDUM :

Kepada Yth. : Bapak Menteri Kehakiman R.I.

H a l : Showa Maru Oil Spill Ecological Damage

I. Sebagaimana tercantum dalam "Agreement and Release" yang telah ditandatangani antara Kuasa dari The Brittania Steamship Insurance Association Ltd. sebagai penanggung jawab gantirugi dari Taiheiyo Kaiun Company Ltd. selaku pemilik kapal Showa Maru dengan Kuasa Pemerintah R.I.

pada tanggal 21 Desember 1976 maka :

a. Sesuai dengan Section 1; pihak Brittania Insurance telah melakukan pembayaran sebanyak US\$1.200.000,- yaitu berupa pembayaran atas kerugian kerugian yang menyajukut ongkos ongkos pembersihan dan sanitasi pencucian tersebut, angkut "production damage" seperti tertanda dalam Section 2.1.1, dan "ecological damage" seperti tertanda dalam Section III atau "berdasarkan diatas" pemerintah Republik Indonesia bertanggal 29 Mei 1975.

b. Disamping Sub.a diatas maka berdasar Section 5 dari "Agreement and Release" telah disetujui untuk dibayar juga ongkos penelitian (survey costs) hingga jumlah tertinggi US\$100.000,- untuk menentukan sampai berapa jauh terdapatnya "ecological damage" dan "besarnya production damage" diatas. Pembayaran mana telah dilakukan kepada Team Survey Ecologic yang dibentuk berdasar S.K. Bapak Menteri Kehakiman No.Y.S.I/4/9-1977.

II. Sebagai kelanjutan dari hal tersebut diatas maka telah diambil pengertian bersama bahwa :

a. Akan dibuat sebuah laporan bersama dari team survey ekologis yang terdiri dari Dr. J.M. Baker disatu pihak selaku marine biologist Republik

Table 1

Damage Classification scheme with examples

Damage Category

	Human health	Fauna	Fauna	Natural resources	Materials	Climate change weather
	Productivity losses; health care costs including increased research costs to avoid pollution; premature burial costs	lost animal and fish production	Reduced crop production reduces forest growth	lost production from polluted water or soil	Reduced life of a material; reduced utility of a material; cost of producing a material; extra cost of a substitute	Reduced agricultural output from decreased rainfall; larger lighting expenses from decreased sunshine
	Risk aversion		Risk aversion	Risk aversion	Risk aversion	Risk aversion
	cost of suffering; cost of bereavement; cost of limitations imposed upon an individual, his family and his society		reduced pleasure from fishing and hunting; reduced wild-life populations	decreased pleasure from horticultural and forestry losses	endurance of soiled or damaged materials; damage to selected aesthetic monuments and objects	decreased recreation benefits from decreased sunshine or increased rainfall; decreased pleasure from reduced visibility

LAMPIRAN - III

INTERNATIONAL CONVENTION ON CIVIL LIABILITY FOR OIL POLLUTION DAMAGE.

(Brussels, 19 November 1969).

The States Parties to the present Convention,

Conscious of the dangers of pollution posed by the worldwide maritime carriage of oil in bulk,

Convinced of the need to ensure that adequate compensation is available to persons who suffer damage caused by pollution resulting from the escape or discharge of oil from ships.

Desiring to adopt uniform international rules and procedures for determining questions of liability and providing adequate compensation in such cases,

Have agreed as follows :

Article I

For the purposes of this Convention :

1. "Ship" means any sea-going vessel and any seaborne craft of any type whatsoever, actually carrying oil in bulk as cargo.

2. "person" means any individual or partnership or any public or private body, whether corporate or not, including a State or any of its constituent subdivisions.

3. "Owner" means the person or persons registered as the owner of the ship or, in the absence of registration, the person or persons owning the ship. However in the case of a ship owned by a State and operated by a company which in that State is registered as the ship's operator, "owner" shall mean such company.

4. "State of the ship's registry" means in relation to registered ships the State of registration of the ship and in relation to unregistered ships the State whose flag the ship is flying.

5. "Oil" means any persistent oil such as crude oil, fuel oil,

heavy diesel oil, lubricating oil and whale oil, whether carried on board a ship as cargo or in the bunkers of such a ship

6. "Pollution damage" means loss or damage caused outside the ship carrying oil by contamination resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur, and includes the costs of preventive measures and further loss or damage caused by preventive measures.

7. "Preventive measures" means any reasonable measures taken by any person after an incident has occurred to prevent or minimize pollution damage.

8. "Incident" means any occurrence, or series of occurrences having the same origin, which causes pollution damage.

9. "Organization" means the Inter-Governmental Maritime consultative Organization.

Article II

This Convention shall apply exclusively to pollution damage caused on the territory including the territorial sea of a Contracting State and to preventive measures taken to prevent or minimize such damage.

Article III

1. Except as provided in paragraphs 2 and 3 of this Article, the owner of a ship at the time of an incident, or where the incident consists of a series of occurrences at the time of the first such occurrence, shall be liable for any pollution damage caused by oil which has escaped or been discharged from the ship as a result of the incident.

2. No liability for pollution damage shall attach to the owner if he proves that the damage;

(a) resulted from an act of war, hostilities, civil war, insurrection or a natural phenomenon of an exceptional, inevitable and

irresistible character, or

- (b) was wholly caused by an act or omission done with intent to cause damage by a third party, or
- (c) was wholly caused by the negligence or other wrongful act of any Government or other authority responsible for the maintenance of lights or other navigational aids in the exercise of that function.

3. If the owner proves that the pollution damage resulted wholly or partially either from an act or omission done with intent to cause damage by the person who suffered the damage or from the negligence of that person, the owner may be exonerated wholly or partially from his liability to such person.

4. No claim for compensation for pollution damage shall be made against the owner otherwise than in accordance with this Convention. No claim for pollution damage under this Convention or otherwise may be made against the servants or agents of the owner.

5. Nothing in this Convention shall prejudice any right of recourse of the owner against third parties.

Article IV

When oil has escaped or has been discharged from two or more ships, and pollution damage results therefrom, the owners of all the ships concerned, unless exonerated under Article III, shall be jointly and severally liable for all such damage which is not reasonably separable.

Article V

1. The owner of a ship shall be entitled to limit his liability under this Convention in respect of any one incident to an aggregate amount of 2,000 francs for each ton of the ship's tonnage. However, this aggregate amount shall not in any event exceed 210 million francs.

2. If the incident occurred as a result of the actual fault or privity of the owner, he shall not be entitled to avail himself of the limitation

provided in paragraph I of this Article.

3. For the purpose of availing himself of the benefit of limitation provided for in paragraph I of this Article the owner shall constitute a fund for the total sum representing the limit of his liability with the Court or other competent authority of any one of the Contracting States in which action is brought under Article IX. The fund can be constituted either by depositing the sum or by producing a bank guarantee or other guarantee, acceptable under the legislation of the Contracting State where the fund is constituted, and considered to be adequate by the Court or another competent authority.

4. The fund shall be distributed among the claimants in proportion to the amounts of their established claims.

5. If before the fund is distributed the owner or any of his servants or agents or any person providing him insurance or other financial security has as a result of the incident in question, paid compensation for pollution damage, such person shall, up to the amount he has paid, acquire by subrogation the rights which the person so compensated would have enjoyed under this Convention.

6. The right of subrogation provided for in paragraph 5 of this Article may also be exercised by a person other than those mentioned therein in respect of any amount of compensation for pollution damage which he may have paid but only to the extent that such subrogation is permitted under the applicable national law.

7. Where the owner or any other person establishes that he may be compelled to pay at a later date in whole or in part any such amount of compensation, with regard to which such person would have enjoyed a right of subrogation under paragraphs 5 or 6 of this Article, had the compensation been paid before the fund was distributed, the Court or other competent authority of the State where the fund has been constituted may order that a sufficient sum shall be provisionally set aside to enable such person at such later date to enforce his claim against the fund.

8. Claims in respect of expenses reasonably incurred or sacrifices reasonably made by the owner voluntarily to prevent or minimize pollution

damage shall rank equally with other claims against the fund.

9. The franc mentioned in this Article shall be a unit consisting of sixty-five and a half milligrams of gold of millesimal fineness nine hundred. The amount mentioned in paragraph I of this Article shall be converted into the national currency of the State in which the fund is being constituted on the basis of the value of that currency by reference to the unit defined above on the date of the constitution of the fund.

10. For the purpose of this Article the ship's tonnage shall be the net tonnage of the ship with the addition of the amount deducted from the gross tonnage on account of engine room space for the purpose of ascertaining the net tonnage. In the case of a ship which cannot be measured in accordance with the normal rules of tonnage measurement, the ship's tonnage shall be deemed to be 40 per cent of the weight in tons (of 2240 lbs) of oil which the ship is capable of carrying.

11. The insurer or other person providing financial security shall be entitled to constitute a fund in accordance with this Article on the same conditions and having the same effect as if it were constituted by the owner. Such a fund may be constituted even in the event of the actual fault or privity of the owner but its constitution shall in that case not prejudice the rights of any claimant against the owner.

Article VI

1. Where the owner, after an incident, has constituted a fund in accordance with Article V, and is entitled to limit his liability,

- (a) no person having a claim for pollution damage arising out of that incident shall be entitled to exercise any right against any other assets of the owner in respect of such claim;
- (b) the Court or other competent authority of any Contracting State shall order the release of any ship or other property belonging to the owner which has been arrested in respect of a claim for pollution damage arising out of that incident, and shall similarly release any bail or other security furnished to avoid such arrest.

2. The foregoing shall, however, only apply if the claimant has access to the Court administering the fund and the fund is actually available in respect of his claim.

Article VII

1. The owner of a ship registered in a Contracting State and carrying more than 2,000 tons of oil in bulk as cargo shall be required to maintain insurance or other financial security, such as the guarantee of a bank or a certificate delivered by an international compensation fund, in the sums fixed by applying the limits of liability prescribed in Article V, paragraph I to cover his liability for pollution damage under this Convention.

2. A certificate attesting that insurance or other financial security is in force in accordance with the provisions of this Convention shall be issued to each ship. It shall be issued or certified by the appropriate authority of the State of the ship's registry after determining that the requirements of paragraph I of this Article have been complied with. This certificate shall be in the form of the annexed model and shall contain the following particulars:

- (a) name of ship and port of registration;
- (b) name and principal place of business of owner;
- (c) type of security;
- (d) name and principal place of business of insurer or other person giving security and, where appropriate, place of business where the insurance or security is established;
- (e) period of validity of certificate which shall not be longer than the period of validity of the insurance or other security.

3. The certificate shall be in the official language or languages of the issuing State. If the language used is neither English nor French, the text shall include a translation into one of these languages.

4. The certificate shall be carried on board the ship and a copy shall be deposited with the authorities who keep the record of the ship's registry.

5. An insurance or other financial security shall not satisfy the requirements of this Article if it can cease, for reasons other than the expiry of the period of validity of the insurance or security specified in the certificate under paragraph 2 of this Article, before three months have elapsed from the date on which notice of its termination is given to the authorities referred to in paragraph 4 of this Article, unless the certificate has been issued within the said period. The foregoing provisions shall similarly apply to any modification which results in the insurance or security no longer satisfying the requirements of this Article.

6. The State of registry shall, subject to the provisions of this Article, determine the conditions of issue and validity of the certificate.

7. Certificate issued or certified under the authority of a Contracting State shall be accepted by other Contracting States for the purposes of this Convention and shall be regarded by other Contracting States as having the same force as certificates issued or certified by them. A Contracting State may at any time request consultation with the State of a ship's registry should it believe that the insurer or guarantor named in the certificate is not financially capable of meeting the obligations imposed by this Convention.

8. Any claim for compensation for pollution damage may be brought directly against the insurer or other person providing financial security for the owner's liability for pollution damage. In such case the defendant may, irrespective of the limits of liability prescribed in Article V, paragraph I. He may further avail himself of the defences (other than the bankruptcy or winding up of the owner) which the owner himself would have been entitled to invoke. Furthermore, the defendant may avail himself of the defence that the pollution damage resulted from the wilful misconduct of the owner himself, but the defendant shall not avail himself of any other defence which he might have been entitled to invoke in proceedings brought by the owner against him. The defendant shall in any event have the right to require the owner to be joined in the proceedings.

9. Any sums provided by insurance or by other financial security

maintained in accordance with paragraph I of this Article shall be available exclusively for the satisfaction of claims under this Convention.

10. A Contracting State shall not permit a ship under its flag to which this Article applies to trade unless a certificate has been issued under paragraph 2 or 12 of this Article.

11. Subject to the provisions of this Article, each Contracting State shall ensure, under its national legislation, that insurance or other security to the extent specified in paragraph I of this Article is in force in respect of any ship, wherever registered, entering or leaving a port in its territory, or arriving at or leaving an off shore terminal in its territorial sea, if the ship actually carries more than 2,000 tons of oil in bulk as cargo.

12. If insurance or other financial security is not maintained in respect of a ship owned by a Contracting State, the provisions of this Article relating thereto shall not be applicable to such ship, but the ship shall carry a certificate issued by the appropriate authorities of the State of the ship's registry stating that the ship is owned by that State and that the ship's liability is covered within the limits prescribed by Article V, paragraph I. Such a certificate shall follow as closely as practicable the model prescribed by paragraph 2 of this Article.

Article VIII

Rights of compensation under this Convention shall be extinguished unless an action is brought thereunder within three years from the date when the damage occurred. However, in no case shall an action be brought after six years from the date of the incident which caused the damage. Where this incident consist of a series of occurrences, the six years' period shall run from the date of the first such occurrence.

Article IX

1. Where an incident has caused pollution damage in the territory including the territorial sea of one or more Contracting States, or preventive measures have been taken to prevent or minimize pollution damage in

such territory including the territorial sea, actions for compensation may only be brought in the Courts of any such Contracting State or States. Reasonable notice of any such action shall be given to the defendant.

2. Each Contracting State shall ensure that its Courts possess the necessary jurisdiction to entertain such actions for compensation.

3. After the fund has been constituted in accordance with Article V the Courts of the State in which the fund is constituted shall be exclusively competent to determine all matters relating to the apportionment and distribution of the fund.

Article X

1. Any judgment given by a Court with jurisdiction in accordance with Article IX which is enforceable in the State of origin where it is no longer subject to ordinary forms of review, shall be recognized in any Contracting State, except :

- (a) where the judgment was obtained by fraud; or
- (b) where the defendant was not given reasonable notice and a fair opportunity to present his case.

2. A judgment recognized under paragraph I of this Article shall be enforceable in each Contracting State as soon as the formalities required in that State have been complied with. The formalities shall not permit the merits of the case to be re-opened.

Article XI

1. The provisions of this Convention shall not apply to warships or other ships owned or operated by a State and used, for the time being, only on Government non-commercial service.

2. With respect to ships owned by a Contracting State and used for commercial purposes, each State shall be subject to suit in the jurisdictions set forth in Article IX and shall waive all defences based on its status as a sovereign State.

Article XII

This Convention shall supersede any International Conventions in force or open for signature, ratification or accession at the date on which the Convention is opened for signature, but only to the extent that such Conventions would be in conflict with it; however, nothing in this Article shall affect the obligations of Contracting States to non-contracting States arising under such International Conventions.

(FINAL CLAUSES OMITTED)

LAMPIRAN - IV

ANNEX 2

INTERNATIONAL CONVENTION ON THE ESTABLISHMENT OF AN INTERNATIONAL FUND FOR COMPENSATION FOR OIL POLLUTION DAMAGE.

(SUPPLEMENTARY TO THE INTERNATIONAL CONVENTION ON CIVIL LIABILITY FOR OIL POLLUTION DAMAGE, 1969).

(Brussels, 18 December 1971)

The States Parties to the present Convention,

Being Parties to the International Convention on Civil Liability for Oil Pollution Damage, adopted at Brussels on 29 November 1969,

Conscious of the dangers of pollution posed by the world-wide maritime carriage of oil in bulk.

Convinced of the need to ensure that adequate compensation is available to persons who suffer damage caused by pollution resulting from the escape or discharge of oil from ships,

Considering that the International Convention of 29 November 1969, on Civil Liability for Oil Pollution Damage, by providing a regime for compensation for pollution damage in Contracting States and for the costs of measures, wherever taken, to prevent or minimize such damage, represents a considerable progress towards the achievement of this aim.

Considering however that this regime does not afford full compensation for victims of oil pollution damage in all cases while it imposes an additional financial burden on shipowners.

Considering further that the economic consequences of oil pollution damage resulting from the escape or discharge of oil carried in bulk at sea by ships should not exclusively be borne by the shipping industry but should in part be borne by the oil cargo interests.

Convinced of the need to elaborate a compensation and indemnification system supplementary to the International Convention on Civil Liability for Oil Pollution Damage with a view to ensuring that full compensation will be available to victims of oil pollution incidents and that the shipowners are at the same time given relief in respect of the

additional financial burdens imposed on them by the said Convention.

Taking note of the Resolution on the Establishment of an International Compensation Fund for Oil Pollution Damage which was adopted on 29 November 1969 by the International Legal Conference on Marine Pollution Damage.

Have agreed as follows :

General Provisions

Article I

For the purpose of this Convention -

1. "Liability Convention" means the International Convention on Civil Liability for Oil Pollution Damage, adopted at Brussels on 29 November 1969.

2. "Ship", "Person", "Owner", "Oil", "Pollution Damage", "Preventive Measures", "Incident" and "Organization", have the same meaning as in Article I of the Liability Convention, provided however that, for the purposes of these terms, "oil" shall be confined to persistent hydrocarbon mineral oils.

3. "Contributing Oil" means crude oil and fuel oil as defined in sub-paragraphs (a) and (b) below :

(a) "Crude Oil" means any liquid hydrocarbon mixture occurring naturally in the earth whether or not treated to render it suitable for transportation. It also includes crude oils from which certain distillate fractions have been removed (sometimes referred to as "topped crudes") or to which certain distillate fractions have been added (sometimes referred to as "spiked" or "reconstituted" crudes).

(b) "Fuel Oil" means heavy distillates or residues from crude oil or blends of such materials intended for use as a fuel for the production of heat or power of a quality equivalent to the "American Society for Testing and Materials" Specification for Number Four Fuel Oil (Designation D 396-69)", or heavier.

4. "Franc" means the unit referred to in Article V, paragraph 9 of the Liability Convention.
5. "Ship's tonnage" has the same meaning as in Article V, paragraph 10, of the Liability Convention.
6. "Ton", in relation to oil, means a metric ton.
7. "Guarantor" means any person providing insurance or other financial security to cover an owner's liability in pursuance of Article VII, paragraph 1, of the Liability Convention.
8. "Terminal installation" means any site for the storage of oil in bulk which is capable of receiving oil from waterborne transportation, including any facility situated off-shore and linked to such site.
9. Where an incident consists of a series of occurrences, it shall be treated as having occurred on the date of the first such occurrence.

Article 2

1. An International Fund for compensation for pollution damage, to be named "The International Oil Pollution Compensation Fund" and hereinafter referred to as "The Fund", is hereby established with the following aims :
 - (a) to provide compensation for pollution damage to the extent that the protection afforded by the Liability Convention is inadequate;
 - (b) to give relief to shipowners in respect of the additional financial burden imposed on them by the Liability Convention, such relief being subject to conditions designed to ensure compliance with safety at sea and other conventions;
 - (c) to give effect to the related purposes set out in this convention.
2. The Fund shall in each Contracting State be recognized as a legal person capable under the laws of that State of assuming rights and obligations and of being a party in legal proceedings before the courts of

that State. Each Contracting State shall recognize the Director of the Fund (hereinafter referred to as "The Director") as the legal representative of the Fund.

Article 3

This Convention shall apply :-

1. with regard to compensation according to Article 4, exclusively to pollution damage caused on the territory including the territorial sea of a Contracting State, and to preventive measures taken to prevent or minimize such damage;

2. with regard to indemnification of shipowners and their guarantors according to Article 5, exclusively in respect of pollution damage caused on the territory, including the territorial sea, of a State party to the Liability Convention, by a ship registered in or flying the flag of a Contracting State and in respect of preventive measures taken to prevent or minimize such damage.

Compensation and indemnification

Article 4

1. For the purpose of fulfilling its function under Article 2, paragraph 1 (a), the Fund shall pay compensation to any person suffering pollution damage if such person has been unable to obtain full and adequate compensation for the damage under the terms of the Liability Convention,

- (a) because no liability for the damage arises under the Liability Convention;
- (b) because the owner liable for the damage under the Liability Convention is financially incapable of meeting his obligations in full and any financial security that may be provided under Article VII of that Convention does not cover or is insufficient to satisfy the claims for compensation for the damage; an owner being treated as financially incapable of meeting his obliga -

tions and a financial security being treated as insufficient if the person suffering the damage has been unable to obtain full satisfaction of the amount of compensation after having taken all reasonable steps to pursue the legal remedies available to him;

- (c) because the damage exceeds the owner's liability under the Liability Convention as limited pursuant to Article V, paragraph 1, of that Convention or under the terms of any other international Convention in force or open for signature, ratification or accession at the date of this Convention.

Expenses reasonably incurred or sacrifices reasonably made by the owner voluntarily to prevent or minimize pollution damage shall be treated as pollution damage for the purposes of this Article.

2. The Fund shall incur no obligation under the preceding paragraph if :

- (a) it proves that the pollution damage resulted from an act of war, hostilities, civil war or insurrection or was caused by oil which has escaped or been discharged from a warship or other ship owned or operated by a State and used, at the time of the incident, only on Government non-commercial service;
or
(b) the claimant cannot prove that the damage resulted from an incident involving one or more ship.

3. If the Fund proves that the pollution damage resulted wholly or partially either from an act or omission done with intent to cause damage by the person who suffered the damage or from the negligence of that person, the Fund may be exonerated wholly or partially from its obligation to pay compensation to such person provided, however, that there shall be no such exoneration with regard to such preventive measures which are compensated under paragraph 1. The Fund shall in any event be exonerated to the extent that the shipowner may have been exonerated under Article III, paragraph 3, of the Liability Convention.

4. (a) Except as otherwise provided in sub-paragraph (b) of this para -

graph, the aggregate amount of compensation payable by the Fund under this Article shall in respect of any one incident be limited, so that the total sum of that amount and the amount of compensation actually paid under the Liability Convention for pollution damage caused in the territory of the Contracting States, including any sums in respect of which the Fund is under an obligation to indemnify the owner pursuant to Article 5, paragraph 1, of this Convention, shall not exceed 450 million francs.

(b) The aggregate amount of compensation payable by the Fund under this Article for pollution damage resulting from a natural phenomenon of an exceptional, inevitable and irresistible character shall not exceed 450 million francs.

5. Where the amount of established claims against the Fund exceeds the aggregate amount of compensation payable under paragraph 4, the amount available shall be distributed in such a manner that the proportion between any established claim and the amount of compensation actually recovered by the claimant under the Liability Convention and this Convention shall be the same for all claimant.

6. The Assembly of the Fund (hereinafter referred to as "the Assembly") may, having regard to the experience of incidents which have occurred and in particular the amount of damage resulting therefrom and to changes in the monetary values, decide that the amount of 450 million francs referred to in paragraph 4, sub-paragraphs (a) and (b), shall be changed; provided, however, that this amount shall in no case exceed 900 million francs or be lower than 450 million francs. The changes amount shall apply to incidents which occur after the date of the decision effecting the change.

7. The Fund shall, at the request of a Contracting State, use its good offices as necessary to assist that State to secure promptly such personnel, material and services as are necessary to enable the State to take measures to prevent or mitigate pollution damage arising from an incident in respect of which the Fund may be called upon to pay compensation under this Convention.

8. The Fund may on conditions to be laid down in the Internal Regulations provide credit facilities with a view to the taking of preventive measures against pollution damage arising from a particular incident in respect of which the Fund may be called upon to pay compensation under this Convention.

Article 5

1. For the purpose of fulfilling its function under Article 2, paragraph 1 (b), the Fund shall indemnify the owner and his guarantor, for that portion of the aggregate amount of liability under the Liability Convention which :

- (a) is in excess of an amount equivalent to 1,500 francs for each ton of the ship's tonnage or of an amount of 125 million francs, whichever is the less, and
- (b) is not in excess of an amount equivalent to 2,000 francs for each ton of the said tonnage or an amount of 210 million francs, whichever is the less,

provided, however that the Fund shall incur no obligation under this paragraph where the pollution damage resulted from the wilful misconduct of the owner himself.

2. The Assembly may decide that the Fund shall, on conditions to be laid down in the Internal Regulations, assume the obligations of a guarantor in respect of ships referred to in Article 3, paragraph 2, with regard to the portion of liability referred to in paragraph 1 of this Article.

However, the Fund shall assume such obligations only if the owner so requests and if he maintains adequate insurance or other financial security covering the owner's liability under the Liability Convention up to an amount equivalent to 1,500 francs for each ton of the ship's tonnage or an amount of 125 million francs, whichever is the less. If the Fund assumes such obligations, the owner shall in each Contracting State considered to have complied with Article VII of the Liability Convention in respect of the portion of his liability mentioned above.

3. The Fund may be exonerated wholly or partially from its obligations under paragraph 1 towards the owner and his guarantor if the Fund proves that as a result of the actual fault or privity of the owner:

- (a) the ship from which the oil causing the pollution damage escaped did not comply with the requirements laid down in :
 - (i) the International Convention for the Prevention of Pollution of the Sea by oil, 1954, as amended in 1962; or
 - (ii) the International Convention for the Safety of Life at Sea, 1960; or
 - (iii) the International Convention on Load Lines, 1966; or
 - (iv) the International Regulations for Preventing Collisions at Sea, 1960; or
 - (v) any amendments to the above-mentioned Conventions which have been determined as being of an important nature in accordance with Article XVI (5) of the Convention mentioned under (i), Article IX (e) of the Convention mentioned under (ii) or Article 29 (3) (d) or (4) (d) of the Convention mentioned under (iii), provided, however, that such amendments had been in force for at least twelve months at the time of the incident; and
- (b) the incident or damage was caused wholly or partially by such non-compliance.

The provisions of this paragraph shall apply irrespective of whether the Contracting State in which the ship was registered or whose flag it was flying is a party to the relevant Instrument.

4. Upon the entry into force of a new Convention resigned to replace, in whole or in part, any of the Instruments specified in paragraph 3, the Assembly may decide at least six months in advance a date on which the new Convention will replace such Instrument or part thereof for the purpose of paragraph 3. However, any State Party to this Convention may declare to the Director before that date that it does not accept such replacement; in which case the decision of the Assembly shall have no effect in respect of a ship registered in, or flying the flag of, that

State at the time of the incident. Such a declaration may be withdrawn at any later date and shall in any event cease to have effect when the State in question becomes a party to such new Convention.

5. A ship complying with the requirements in an amendment to an Instrument, specified in paragraph 3 or with requirements in a new Convention, where the amendment or Convention is designed to replace in whole or in part such Instrument, shall be considered as complying with the requirements in the said Instrument for the purposes of paragraph 3.

6. Where the Fund, acting as a guarantor by virtue of paragraph 2, has paid compensation for pollution it shall have a right of recovery from the owner if and to the extent that the Fund would have been exonerated pursuant to paragraph 3 from its obligations under paragraph 1 to indemnify the owner.

7. Expenses reasonably incurred and sacrifices reasonably made by the owner voluntarily to prevent or minimize pollution damage shall be treated as included in the owner's liability for the purposes of this Article.

Article 6

1. Rights to compensation under Article 4 or indemnification under Article 5 shall be extinguished unless an action is brought thereunder or a notification has been made pursuant to Article 7, paragraph 6, within three years from the date when the damage occurred. However, in no case shall an action be brought after six years from the date incident which caused the damage.

2. Notwithstanding paragraph 1, the right of the owner or his guarantor to seek indemnification from the Fund pursuant to Article 5, paragraph 1, shall in no case be extinguished before the expiry of a period of six months as from the date on which the owner or his guarantor acquired knowledge of the bringing of an action against him under the Liability Convention.

Article 7

1. Subject to the subsequent provisions of this Article, any action against the Fund for compensation under Article 4 or indemnification under Article 5 of this Convention shall be brought only before a court competent under Article IX of the Liability Convention in respect of actions against the owner who is or who would, but for the provisions of Article III, paragraph 2, of that Convention, have been liable for pollution damage caused by the relevant incident.

2. Each Contracting State shall ensure that its courts possess the necessary jurisdiction to entertain such actions against the Fund as are referred to in paragraph 1.

3. Where an action for compensation for pollution damage has been brought before a court competent under Article IX of the Liability Convention against the owner of a ship or his guarantor, such court shall have exclusive jurisdictional competence over any action against the Fund for compensation or indemnification under the provisions of Article 4 or 5 of this Convention in respect of the same damage. However, where an action for compensation for pollution damage under the Liability Convention has been brought before a court in a State Party to the Liability Convention but not to this Convention, any action against the Fund under Article 4 or Article 5, paragraph 1, of this Convention shall at the option of the claimant be brought either before a court of the State where the Fund has its headquarters or before any court of a State Party to this Convention competent under Article IX of the Liability Convention.

4. Each Contracting State shall ensure that the Fund shall have the right to intervene as a party to any legal proceedings instituted in accordance with Article IX of the Liability Convention before a competent court of that State against the owner of a ship or his guarantor.

5. Except as otherwise provided in paragraph 6, the Fund shall not be bound by any judgment or decision in proceedings to which it has not been a party or by any settlement to which it is not a party.

6. Without prejudice to the provisions of paragraph 4, where an action under the Liability Convention for compensation for pollution damage has been brought against an owner or his guarantor, before a competent court in a Contracting State, each party to the proceedings shall be entitled under the national law of that State to notify the Fund of the proceedings. Where such notification has been made in accordance with the formalities required by the law of the court seized and in such time and in such a manner that the Fund has in fact been in a position effectively to intervene as a party to the proceedings, any judgment rendered by the court in such proceedings shall, after it has become final and enforceable in the State where the judgment was given, become binding upon the Fund in the sense that the facts and findings in that judgment may not be disputed by the Fund even if the Fund has not actually intervened in the proceedings.

Article 8

Subject to any decision concerning the distribution referred to in Article 4, paragraph 5, any judgment given against the Fund by a court having jurisdiction in accordance with Article 7, paragraphs 1 and 3, shall, when it has become enforceable in the State of origin and is in that State no longer subject to ordinary forms of review, been recognized enforceable in each Contracting State on the same conditions as are prescribed in Article X of the Liability Convention.

Article 9

1. Subject to the provisions of Article 5, the Fund shall, in respect of any amount of compensation for pollution damage paid by the Fund in accordance with Article 4, paragraph 1, of this Convention, acquire by subrogation the rights that the person so compensated may enjoy under the Liability Convention against the owner or his guarantor.

2. Nothing in this Convention shall prejudice any right of recourse or subrogation of the Fund against persons other than those referred to in the preceding paragraph. In any event the right of the Fund to sub -

rogation against such person shall be not less favourable than that of an insurer of the person to whom compensation or indemnification has been paid.

3. Without prejudice to any other rights of subrogation or recourse against the Fund which may exist, a Contracting State, or agency thereof, which has paid compensation for pollution damage in accordance with provisions of national law shall acquire by subrogation the rights which the person so compensated would have enjoyed under this Convention.

(Article 10 to 41 Omitted)

LAMPIRAN - V

ANNEX 3

TANKER OWNERS VOLUNTARY AGREEMENT CONCERNING LIABILITY FOR OIL POLLUTION
(Incorporating Amendments up to 1 June 1978)

Preamble

The Parties to this Agreement are Tanker Owners and Bareboat Charterers. By means of the Tanker Owners Voluntary Agreement Concerning Liability for Oil Pollution dated as of January 7, 1969, as amended, (hereinafter called "TOVALOP") the Parties took constructive measures to mitigate and provide compensation for damage by oil pollution from Tankers.

The Parties recognise that the coming into force on June 19, 1975 of the International Convention on Civil Liability for Oil Pollution Damage, 1969 (hereinafter called the "Liability Convention"), and the additional ratifications and accessions to that Convention which have occurred since that date, have established in numerous areas of the world an international legal regime for compensating Persons (including Governments) who sustain Pollution Damage resulting from the discharge of Oil from Tankers. The Parties recognise also that the Liability Convention has remedied in large part deficiencies in traditional maritime law for which TOVALOP offered substantial relief. However, the Parties are aware of the fact that there are still substantial areas of the world where the Liability Convention does not apply and to which its benefits and protection may not be extended for some time. Therefore, pending the widespread application, they have decided to amend TOVALOP, effective as from noon G.M.T. June 1, 1978, so as to provide in these latter areas, in respect of Incidents which occur after that date, benefits and protection generally comparable with those available under the Liability Convention, together with certain other benefits and protection.

Accordingly, the Parties, and such other Tanker Owners and Bareboat Charterers as may hereafter become Parties, in consideration of their mutual promises, have agreed with one another and do hereby agree as follows :

1. Definitions

Whenever the following words and phrases appear in the Preamble and

other Clauses hereof, they shall have the meaning indicated below :

- (a) "Tanker" means any sea-going vessel and any sea-borne craft of any type whatsoever, designed and constructed for carrying Oil in bulk as cargo, whether or not it is actually so carrying oil.
- (b) "Person" means any individual or partnership or any public or private body, whether corporate or not, including a State or any of its constituent subdivisions.
- (c) "Owner" means the Person or Persons registered as the owner of the Tanker or, in the absence of registration, the Person or Persons owning the Tanker. However, in the case of a Tanker owned by a State and operated by a company which in that State is registered as the Tanker's operator, "Owner" shall mean such company. Notwithstanding the foregoing, in the case of a Tanker under bareboat charter, "Owner" means the Bareboat Charterer.
- (d) "Bareboat Charterer" means the Person (or Person) who has chartered a Tanker upon terms which provided, among other things, that the Charterer shall have exclusive possession and control of, the Tanker during the life of the charter.
- (e) "Party" means a Party to this Agreement.
- (f) "Participating Owner" means the Owner of a Tanker who is a Party.
- (g) "Oil" means any persistent hydrocarbon mineral oil such as crude oil, fuel oil, heavy diesel oil and lubricating oil whether or not carried as cargo.
- (h) "Pollution Damage" means loss or damage caused outside the Tanker by contamination resulting from the escape or discharge of Oil from the Tanker, wherever such escape or discharge may occur, provided that the loss or damage is caused on the territory, including the territorial sea, of any State and includes the costs of preventive Measures, wherever taken, and further loss or damage caused by Preventive Measures but excludes any loss or damage which is remote or speculative, or which does not result directly from such escape or discharge.
- (i) "Preventive Measures" means any reasonable measures taken by any Person after an incident has occurred to prevent or minimise Pollution Damage.

- (j) "Incident" means any occurrence, or series of occurrences having the same origin, which causes Pollution Damage, or which creates the Threat of an escape or discharge of Oil.
- (k) "Threat of an escape or discharge of Oil" means a grave and imminent danger of the escape or discharge of Oil from a Tanker which, if it occurred, would create a serious danger of Pollution Damage, whether or not an escape or discharge in fact subsequently occurs.
- (l) "Threat Removal Measures" means reasonable measures taken by any Person after an Incident has occurred for the purposes of removing the threat of an escape or discharge of Oil.
- (m) "Liability Convention" means the International Convention on Civil Liability for Oil Pollution Damage, 1969, which entered into force on June 19, 1975, including legislation and regulations implementing the provisions hereof which are enacted from time to time by any Contracting State thereunder.
- (n) A Tanker's "Tonnage" shall be the net tonnage of the Tanker with the addition of the amount deducted from the gross tonnage on account of engine room space for the purpose of ascertaining the net tonnage. In the case of a Tanker for which this Tonnage cannot be ascertained, the Tanker's Tonnage shall be deemed to be 40 per cent, of the weight in tons of 2,240 lbs. of Oil which the Tanker is capable of carrying.
- (o) The "Federation" means The International Tanker Owners Pollution Federation Limited, a Company limited by guarantee and formed pursuant to the laws of England for the purpose of administering this Agreement.
- (p) "Cost" or "Costs" means reasonable cost or costs, respectively.

II. General Conditions

(A) Upon acceptance by the Federation of an application in the form annexed hereto as Exhibit "A" any Owner in the world shall become a Party to this Agreement and a member of the Federation.

(B) Each Party shall :

(1) make the terms of this Agreement applicable to all Tankers of

is or becomes Owner;
whilstish and maintain his financial capability to fulfil his obligations under this Agreement to the satisfaction of the Federation;

- (3) dispose of all valid claims against him arising under this Agreement as promptly as is practicable;
- (4) become a member of the Federation and, subject to the Articles of Association of the Federation, remain a member thereof so long as he continues to be a Party hereto;
- (5) abide by the Memorandum and Articles of Association of the Federation and all rules and directives of the Federation; and
- (6) fulfil all his other obligations under this Agreement.

III Duration and Coverage

(A) This Agreement may be terminated by Special Resolution adopted at an Extraordinary General Meeting of the members of the Federation convened and conducted in accordance with the Articles of Association of the Federation upon a poll vote in which at least 75 per cent. of the votes cast are in favour of said Resolution:

- (i) upon June 1, 1981 or any successive anniversary of that date, or
- (ii) at any time after June 1, 1981 provided that the Board of Directors of the Federation has previously determined that the Liability Convention is sufficiently widespread in application.

(B) A Party may withdraw from this Agreement on June 1, 1981 or on any successive anniversary of that date by giving at least six months prior written notice of withdrawal to the Federation, or in accordance with Clause X.

(C) The withdrawal of a Party from this Agreement under this Clause III, or under Clause X, or termination of this Agreement by the Parties shall not affect any rights and obligations of any then accrued under this Agreement.

(D) Upon termination of this Agreement shall continue in existence for such reasonable period as is necessary to wind up its affairs.

IV. Liability

(A) Subject to the terms and conditions of this Agreement, the Participating Owner of a Tanker involved in an Incident agrees to assume liability for pollution Damage caused by Oil which has escaped or which has been discharged from the Tanker, and the cost of threat Removal measures taken as a result of the incident.

(B) In liability for pollution damage for the cost of Threat Removal Measures under clause IV of the Incident

(a) caused Pollution Damage anywhere in the world for any part of which liability is imposed under the terms of the Liability Convention, or

(b) resulted from an act of war, hostilities, civil war, insurrection or natural phenomenon of an exceptional, Inevitable or irresistible character, or

(c) was wholly caused by an act or omission done with intent to cause damage, by a third person, or

(d) was wholly caused by the negligence or other wrongful act of any Government or other authority responsible for the maintenance of lights or other navigational aids in the exercise of that function.

(C) If Pollution Damage of the circumstances which gave rise to Threat Removal Measures resulted wholly or partially from the negligence of the Person who sustained the Pollution Damage or who took the Threat Removal Measures, the Participating Owner shall be exonerated wholly or partially from any liability he would otherwise have to such Person.

V. Liability for Pollution Damage Where Two or More Tankers are Involved

When Oil has escaped or been discharged from two or more Tankers of Participating Owners and causes Pollution Damage, the Participating Owners concerned, except as exonerated by reason of Clause IV, shall be jointly and severally liable for all such Damage which is not reasonably separable.

VI. Preventive Measures and Threat Removal Measures by the Participating Owner.

A Participating Owner of a Tanker involved in an Incident shall exercise his best efforts to take such Preventive Measures and Threat Removal Measures as are practicable and appropriate under the circumstances. The taking of such Measures shall not constitute an admission of liability.

Each Participating Owner shall, in connection with the establishing and maintaining of financial capability, make appropriate provision for reimbursement of the cost of such Measures.

VII. Limits of Liability

(A) The maximum liability under this Agreement of a Participating Owner in respect of any one Incident shall be One Hundred and Sixty U.S. Dollars (U.S. \$ 160.00) per ton of each of his Tankers involved in the Incident, or Sixteen Million, Eight Hundred Thousand U.S. Dollars (U.S. \$ 16,800,000.00). Whichever is less.

(B) When the aggregate of the established claims hereunder exceeds the limits specified in Paragraph (A) above, the Participating Owner shall pay that portion of each of the established claims, as the maximum liability calculated in accordance with paragraph (A) above, bears to the aggregate of established claims.

(C) If before the Participating Owner has satisfied in full his liability under this Agreement, he or any Person providing him insurance or other financial security has as a result of the Incident in question paid compensation for Pollution Damage or the costs of Threat Removal Measures, such Person shall, up to the amount he has paid, acquire by subrogation the rights which the Person so compensated would have enjoyed under this Agreement.

(D) When a Participating Owner establishes that he may be compelled to pay at a later date in whole or in part any amount of compensation pursuant to the terms of this Ahreement, with regard to which he would have enjoyed a right of subrogation under Paragraph (C) of this Clause, he may set aside a sufficient sum provisionally to enable him at a later date to make appropriate payment, while at the same time satisfying the

claims of other Persons having valid claims under this Agreement.

(E) For the purpose of determining the extent of a Participating Owner's liability under this Agreement, claims in respect of Preventive Measures voluntarily taken by the Participating Owner and costs incurred by the Participating Owner in voluntarily taking Threat Removal Measures, shall be treated as if they were claims by Persons other than the Participating Owner in determining Owner's liability up to the limits set forth in Paragraph (A).

VIII. Procedure and Miscellaneous

(A) In the event of the escape or discharge of Oil from the Tanker of a Participating Owner or the Threat thereof, the Participating Owner shall notify the Federation and shall advise the Federation of the Preventive Measures and Threat Removal Measures (if any) he plans to take and whether any claims have been notified under this Agreement.

(B) The Parties hereto authorise the Federation to exercise due diligence to provide Persons concerned with the escape or discharge or the Threat thereof, with a copy of this Agreement and confirmation that the Owner was, at the time of such escape or discharge or Threat, a Participating Owner.

(C) No liability shall arise under this Agreement unless written notice of claim is received by the Participating Owner within one year of the date of the incident.

(D) Persons making claims hereunder may, in the event of a dispute with a Participating Owner concerning same, commence arbitration proceedings, in accordance with Paragraph (1) hereof, within two years of the date of the incident, and these proceedings shall be the exclusive means for enforcing a Participating Owner's liability hereunder. Each Participating Owner by becoming a Party to this Agreement, and so long as he remains bound hereby, shall be deemed irrevocable to have offered to any such Person to submit all such disputes to arbitration as provided in said Paragraph (1).

(E) Unless otherwise agreed in writing, any payment to a Person by or on behalf of a Participating Owner shall be in full settlement of all said Person's claims against the Participating Owner, the Tanker involved, its charterer, their officers, agents, employees and underwriters, which arise out of the Incident.

(F) This Agreement does not create any rights against the Federation and the Federation shall have no liability hereunder or otherwise to any Person.

(G) No rights or obligations created hereunder or connected herewith may be assigned or transferred.

(H) Except as provided by Clause V, no Participating Owner shall be liable under this Agreement in respect of an escape or discharge of Oil or the Threat thereof from the Tanker of another Participating Owner.

(I) All claims by any Person or Persons under this Agreement shall, if not otherwise disposed of, be finally settled under the rules of conciliation and arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with said rules. In any such proceeding the Person allegedly having the claim shall have the burden of proving that Oil discharged from the Tanker caused him Pollution Damage or that the Threat thereof necessitated his taking Threat Removal Measures.

(J) No payment made hereunder shall be deemed (i) an admission of, or evidence of liability on the part of the Participating Owner in any other claimant, or (ii) submission to any jurisdiction on the part of the Participating Owner for any purpose whatsoever, other than as provided in this Clause VIII.

(K) Nothing in this Agreement shall prejudice the right of recourse of a Participating Owner against third persons or vessels.

IX. Interpretation

The Federation shall have the right to make rules and directives from time to time with respect to the interpretation and administration of this Agreement.

X. Amendments

This Agreement may be amended by Special Resolution adopted at an Extraordinary General Meeting of the members of the Federation convened and conducted in accordance with the Articles of Association of the Federation upon a poll vote in which at least 75 per cent. of the votes cast are in favour of said Resolution. A Party who votes against such Resolution shall thereupon have the option, to be exercised by written notice served upon the Federation within sixty days of said Special Resolution, to withdraw from this Agreement, without, however, affecting his rights and liabilities accrued at the time of his withdrawal.

XI. Law Governing

This Agreement shall be governed by the laws of England. However, anything herein to the contrary notwithstanding, a Participating Owner shall not be required :

- (a) To incur any obligation or take any action, with respect to any Incident in which his Tanker is involved, which would violate the laws or government regulations of the flag State of the Tanker, or
- (b) To incur any obligation or take any action which would, if a majority of the stock of the Participating Owner, directly or indirectly by another corporation, partnership or individual, violate any laws or government regulations which may apply to said other corporation, partnership or individual.

SECTION 5. INTERNATIONAL RULES AND NATIONAL LEGISLATION TO PREVENT,
REDUCE AND CONTROL POLLUTION OF THE MARINE ENVIRONMENT

5. States, acting especially through competent international organizations or diplomatic conference, shall establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment referred to in paragraph 1. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.

Article 207
Pollution from land-based sources

1. States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources, including rivers, estuaries, pipelines and outfall structures, taking into account internationally agreed rules, standards and recommended practices and procedures.
2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.
3. States shall endeavour to harmonize their policies in this connection at the appropriate regional level.
4. States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment from land-based sources, taking into account characteristic regional features, the economic capacity of developing States and their need for economic development. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.

5. Laws, regulations, measures, rules, standards and recommended practices and procedures referred to in paragraphs 1, 2 and 4 shall include those designed to minimize, to the fullest extent possible, the release of toxic, harmful or noxious substances, especially those which are persistent, into the marine environment.

Article 208
Pollution from sea-bed activities subject to national jurisdiction

- 1 Coastal States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment arising from or in connection with sea-bed activities subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction, pursuant to articles 60 and 80.
2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.
3. Such laws, regulations and measures shall be no less effective than international rules, standards and recommended practices and procedures.
4. States shall endeavour to harmonize their policies in this connection at the appropriate regional level.
5. Dumping within the territorial sea and the exclusive economic zone or onto the continental shelf shall not be carried out without the express prior approval of the coastal State, which has the right to permit, regulate and control such dumping after due consideration of the matter with other States which by reason of their geographical situation may be adversely affected thereby.
6. National laws, regulations and measures shall be no less effective in preventing, reducing and controlling such pollution than the global rules and standards.

Article 209
Pollution from activities in the Area

1. International rules, regulations and procedures shall be established in accordance with Part XI to prevent, reduce and control pollution of the marine environment from activities in the Area. Such rules, regulations and procedures shall be re-examined from time to time as necessary.
2. Subject to the relevant provisions of this section, States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from activities in the Area undertaken by vessels, installations, structures and other devices flying their flag or of their registry or operating under their authority, as the case may be. The requirements of such laws and regulations shall be no less effective than the international rules, regulations and procedures referred to in paragraph 1.

Article 210
Pollution by dumping

1. States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment by dumping.
2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.
3. Such laws, regulations and measures shall ensure that dumping is not carried out without the permission of the competent authorities of States.
4. States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.

5. Dumping within the territorial sea and the exclusive economic zone or onto the continental shelf shall not be carried out without the express prior approval of the coastal State, which has the right to permit, regulate and control such dumping after due consideration of the matter with other States which by reason of their geographical situation may be adversely affected thereby.
6. National laws, regulations and measures shall be no less effective in preventing, reducing and controlling such pollution than the global rules and standards.

Article 211

Pollution from vessels

1. States, acting through the competent international organization or general diplomatic conference, shall establish international rules and standards to prevent, reduce and control pollution of the marine environment from vessels and promote the adoption, in the same manner, of routing systems designed to minimize the threat of accident coastline, and pollution damage to the related interests of coastal States. Such rules and standards shall, in the same manner, be re-examined from time to time as necessary.
2. States shall adopt laws and regulations for the prevention, reduction and control of pollution of the marine environment as that of generally accepted international rules and standards established through the competent international organization or general diplomatic conference.
3. States which establish particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign vessels into their ports or internal waters or for a call at their off-shore terminals shall give due publicity to such requirements and shall communicate them to the competent international organization. Whenever such requirements are established in identical form by two or more coastal States in an endeavour to harmonize policy, the communication shall indicate which States are participating in such co-operative arrangements. Every State shall require the master of a vessel flying its flag or of its registry, when navigating within the territorial sea of a State participating in such co-operative arrangements, to furnish, upon the request of that State, information as to whether it is proceeding, upon if so, to indicate whether it is proceeding in such co-operative arrangements and, that State. This article is without prejudice to the port entry requirements and, vessel of its right of innocent passage or to the continued exercise by a paragraph 2.
4. Coastal States may, in the exercise of their sovereignty within their territorial sea, adopt laws and regulations for the prevention, reduction and control of marine pollution from foreign vessels, including vessels exercising the right of innocent passage. Such laws and regulations shall, in accordance with Part II, section 3, not hamper innocent passage of foreign vessels.
5. Coastal States, for the purpose of enforcement as provided for in section 6, may in respect of their exclusive economic zones adopt laws and regulations for the prevention, reduction and control of pollution from vessels conforming to and giving effect to generally accepted international rules and standards established through the competent international organization or general diplomatic conference.

6.
 - (a) Where the international rules and standards referred to in Paragraph 1 are inadequate to meet special circumstances and particular, clearly defined area of their respective exclusive economic zones is an area where the adoption of special mandatory measures for the prevention of pollution from vessels is required for recognized technical reasons, as well as its utilization or the protection of its resources and the particular character of its traffic, the coastal States, after appropriate consultations through the competent international organization with any other States concerned, may, for that area, direct a communication to that organization, submitting scientific and technical evidence in support and information on necessary reception facilities. Within 12 months after receiving such a communication, the organization shall determine whether the conditions in that area correspond to the requirements set out above. If the organization so determines, the coastal States may, for that area, adopt laws and regulations for the prevention, reduction and control of pollution from vessels implementing such international rules and standards or navigation practices as are made applicable, through the organization, for special areas. These laws and regulations shall not become applicable to foreign vessels until 15 months after the submission of the communication to the organization.
 - (b) The coastal States shall publish the limits of any such particular, clearly defined area.
- (c) If the coastal States intend to adopt additional laws and regulations for the same area for the prevention, reduction and control of pollution from vessels, they shall, when submitting the aforesaid communication, at the same time notify the organization thereof. Such additional laws and regulations may relate to discharges of navigational practices but shall not require foreign vessels to observe design, construction, manning or equipment standards other than generally accepted international rules and standards; they shall become applicable to foreign vessels 15 months after the submission of the communication to the organization, provided that the organization agrees within 12 months after the submission of the communication.

7. The international rules and standards referred to in this article should include inter alia those relating to prompt notification to coastal States, whose coastline or related interests may be affected by incidents, including maritime casualties, which involve discharges or probability of discharges.

Article 212 Pollution from or through the atmosphere

1. States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from or through the atmosphere, applicable to the air space under their sovereignty and to vessels flying their flag or vessels or aircraft of their registry, taking into account internationally agreed rules, standards and recommended practices and procedures and the safety of air navigation.

2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.

3. States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution.

SECTION 6. ENFORCEMENT

Article 213

Enforcement with respect to pollution from land-based sources

States shall enforce their laws and regulations adopted in accordance with article 207 and shall adopt laws and regulations and take other measures necessary to implement applicable international rules and standards established through competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment from land-based sources.

Article 214

Enforcement with respect to pollution from sea-bed activities

States shall enforce their laws and regulations adopted in accordance with article 208 and shall adopt laws and regulations and take other measures necessary to implement applicable international rules and standards established through competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment arising from or in connection with sea-bed activities subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction, pursuant to articles 60 and 80.

Article 215

Enforcement with respect to pollution from activities in the Area

Enforcement of international rules, regulations and procedures established in accordance with Part XI to prevent, reduce and control pollution of the marine environment from activities in the Area shall be governed by that Part.

Article 216

Enforcement with respect to pollution by dumping

1. Laws and regulations adopted in accordance with this Convention and applicable international rules and standards established through competent international organizations or diplomatic conference for the prevention, reduction and control of pollution of the marine environment by dumping shall be enforced:

- by the coastal State with regard to dumping within its territorial sea or its exclusive economic zone or onto its continental shelf;

(b) by the flag State with regard to vessels flying its flag or vessels or aircraft of its registry;

(c) by any State with regard to acts of loading of wastes or other matter occurring within its territory or at its off-shore terminals.

2. No State shall be obliged by virtue of this article to institute proceedings when another State has already instituted proceedings in accordance with this article.

Article 217

Enforcement by flag States

1. States shall ensure compliance by vessels flying their flag or of their registry with applicable international rules and standards, established through the competent international organization or general diplomatic conference, and with their laws and regulations adopted in accordance with this Convention for the prevention, reduction and control of pollution of the marine environment from vessels and shall accordingly adopt laws and regulations and take other measures necessary for their implementation. Flag States shall provide for the effective enforcement of such rules, standards, laws and regulations, irrespective of where a violation occurs.

2. States shall, in particular, take appropriate measures in order to ensure that vessels flying their flag or of their registry are prohibited from sailing, until they can proceed to sea in compliance with the requirements of the international rules and standards referred to in paragraph 1, including requirements in respect of design, construction, equipment and manning of vessels.

3. States shall ensure that vessels flying their flag or of their registry carry on board certificates required by and issued pursuant to international rules and standards referred to in paragraph 1. States shall ensure that vessels flying their flag are periodically inspected in order to verify that such certificates are in conformity with the actual condition of the vessels. These certificates shall be accepted by other States as evidence of the condition of the vessels and shall be regarded as having the same force as certificates issued by them, unless there are clear grounds for believing that the condition of the vessel does not correspond substantially with the particulars of the certificates.

4. If a vessel commits a violation of rules and standards established through the competent international organization or general diplomatic conference, the flag State, without prejudice to articles 218, 220 and 228, shall provide for immediate investigation and where appropriate institute proceedings in respect of the alleged violation irrespective of where the violation occurred or where the pollution caused by such violation has occurred or has been spotted.

5. Flag States conducting an investigation of the violation may request the assistance of any other State whose co-operation could be useful in clarifying the circumstances of the case. States shall endeavour to meet appropriate requests of flag States.

6. States shall, at the written request of any State, investigate any violation alleged to have been committed by vessels flying their flag. If satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, flag States shall without delay institute such proceedings in accordance with their laws.

7. Flag States shall promptly inform the requesting State and the competent international organization of the action taken and its outcome. Such information shall be available to all States.

8. Penalties provided for by the laws and regulations of States for vessels flying their flag shall be adequate in severity to discourage violations wherever they occur.

Article 218 Enforcement by port States

1. When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State may undertake investigations and, where the evidence so warrants, institute proceedings in respect of any discharge from that vessel outside the internal waters, territorial sea or exclusive economic zone of that State in violation of applicable international rules and standards established through the competent international organization or general diplomatic conference.

2. No proceedings pursuant to paragraph 1 shall be instituted in respect of a discharge violation in the internal waters, territorial sea or exclusive economic zone of another State unless requested by that State, the flag State, or State damaged or threatened by the discharge violation, or unless the violation has caused or is likely to cause pollution in the internal waters, territorial sea or exclusive economic zone of the State instituting the proceedings.

3. When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State shall, as far as practicable, comply with requests from any State for investigation of a discharge violation referred to in paragraph 1, believed to have occurred in, caused, or threatened damage to the internal waters, territorial sea or exclusive economic zone of the requesting State. It shall likewise, as far as practicable, comply with requests from the flag State for investigation of such a violation, irrespective of where the violation occurred.

4. The records of the investigation carried out by a port State pursuant to this article shall be transmitted upon request to the flag State or to the coastal State. Any proceedings instituted by the port State on the basis of such an investigation may, subject to section 7, be suspended at the request of the coastal State when the violation has occurred within its internal waters, territorial sea or exclusive economic zone. The evidence and records of the case, together with any bond or other financial security posted with the authorities of the port State, shall in that event be transmitted to the coastal State. Such transmittal shall preclude the continuation of proceedings in the port State.

Article 219 Measures relating to seaworthiness of vessels to avoid pollution

Subject to section 7, States which, upon request or on their own initiative, have ascertained that a vessel within one of their ports or at one of their off-shore terminals is in violation of applicable international rules and standards relating to seaworthiness of vessels and thereby threatens damage to the marine environment shall, as far as practicable, take administrative measures to prevent the vessel from sailing. Such States may permit the vessel to proceed only to the nearest appropriate repair yard and, upon removal of the causes of the violation, shall permit the vessel to continue immediately.

Article 220 Enforcement by coastal States

1. When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State may, subject to section 7, institute proceedings in respect of any violation of its laws and regulations adopted in accordance with this Convention or applicable international rules and standards for the prevention, reduction and control of pollution from vessels when the violation has occurred within the territorial sea or the exclusive economic zone of that State.

2. Where there are clear grounds for believing that a vessel navigating in the territorial sea of a State has, during its passage therin, violated laws and regulations of that State adopted in accordance with this Convention or applicable international rules and standards for the prevention, reduction and control of pollution from vessels, that State, without prejudice to the application of the relevant provisions of Part II, section 3, may undertake physical inspection of the vessel relating to the violation and may, where the evidence so warrants, institute proceedings, including detention of the vessel, in accordance with its laws, subject to the provisions of section 7.

3. Where there are clear grounds for believing that a vessel navigating in the exclusive economic zone or the territorial sea of a State has, in the exclusive economic zone, committed a violation of applicable international rules and standards for the prevention, reduction and control of pollution from vessels or laws and regulations of that State conforming and giving effect to such rules and standards, that State may require the vessel to give information regarding its identity and port of registry, its last and its next port of call and other relevant information required to establish whether a violation has occurred.

4. States shall adopt laws and regulations and take other measures so that vessels flying their flag comply with requests for information pursuant to paragraph 3.

5. Where there are clear grounds for believing that a vessel navigating in the exclusive economic zone or the territorial sea of a State has, in the exclusive economic zone, committed a violation referred to in paragraph 3 resulting in a substantial discharge causing or threatening significant pollution of the marine environment, that State may undertake physical inspection of the vessel for matters relating to the violation if the vessel has refused to give information or if the information supplied by the vessel is manifestly at variance with the evident factual situation and if the circumstances of the case justify such inspection.

6. Where there is clear objective evidence that a vessel navigating in the exclusive economic zone or the territorial sea of a State has, in the exclusive economic zone, committed a violation referred to in paragraph 3 resulting in a substantial major damage or threat of major damage to the coastlines or related interests of the coastal State, or to any resources of its territorial sea or exclusive economic zone, that State may, subject to section 7, provided that the evidence so warrants, institute proceedings, including detention of the vessel, in accordance with its laws.

7. Notwithstanding the provisions of paragraph 6, whenever appropriate procedures have been established, either through the competent international organization or as otherwise agreed, whereby compliance with requirements for bonding or other appropriate financial security has been assured, the coastal State if bound by such procedures shall allow the vessel to proceed.

8. The provisions of paragraphs 3, 4, 5, 6 and 7 also apply in respect of national laws and regulations adopted pursuant to article 21, paragraph 6.

Article 22

Measures to avoid pollution arising from maritime casualties

- Nothing in this Part shall prejudice the right of States, pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing, from pollution or threat of pollution following upon a maritime casualty or acts relating to such a casualty, which may reasonably be expected to result in major harmful consequences.

2. For the purposes of this article, "maritime casualty" means a collision of vessels, stranding or other incident of navigation, or other occurrence on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo.

Article 222 Enforcement with respect to pollution from or through the atmosphere

States shall enforce, within the air space under their sovereignty or with regard to vessels flying their flag or vessels or aircraft of their registry, their laws and regulations adopted in accordance with article 21, paragraph 1, and with other provisions of this Convention and shall adopt laws and regulations and take other measures necessary to implement applicable international rules and standards established through competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment from or through the atmosphere, in conformity with all relevant international rules and standards concerning the safety of air navigation.

SECTION 7. SAFEGUARDS

Article 223 Measures to facilitate proceedings

In proceedings instituted pursuant to this Part, States shall take measures to facilitate the hearing of witnesses and the admission of evidence submitted by authorities of another State, or by the competent international organization, and shall facilitate the attendance at such proceedings of official representatives of the competent international organization, the flag State and any State affected by pollution rising out of any violation. The official representatives attending such proceedings shall have such rights and duties as may be provided under national laws and regulations or international law.

Article 224 Exercise of powers of enforcement

The powers of enforcement against foreign vessels under this Part may only be exercised by officials or by warships, military aircraft, or other ships or aircraft clearly marked and identifiable as being on government service and authorized to that effect.

Article 225 Duty to avoid adverse consequences in the exercise of the powers of enforcement

In the exercise under this Convention of their powers of enforcement against foreign vessels, States shall not endanger the safety of navigation or otherwise create any hazard to a vessel, or bring it to an unsafe port or anchorage, or expose the marine environment to an unreasonable risk.

Article 226

Investigation of foreign vessels

1. (a) States shall not delay a foreign vessel longer than is essential for purposes of the investigations provided for in articles 216, 218 and 220. Any physical inspection of foreign vessel shall be limited to an examination of such certificates, records or other documents as the vessel is required to carry by generally accepted international rules and standards or of any similar documents which it is carrying; further physical inspection of the vessel may be undertaken only after such an examination and only when:
 - (i) there are clear grounds for believing that the condition of the vessel or its equipment does not correspond substantially with the particulars of those documents;
 - (ii) the contents of such documents are not sufficient to confirm or verify a suspected violation; or
 - (iii) the vessel is not carrying valid certificates and records.
- (b) In the investigation indicated in paragraph (a) applicable laws and regulations or international rules and standards for the protection and preservation of the marine environment, release shall be made promptly subject to reasonable procedures such as bonding or other appropriate financial security.
- (c) without prejudice to applicable international rules and standards relating to the seaworthiness of vessels, the release of a vessel may, whenever it would present an unreasonable threat of damage to the marine environment, be refused or made conditional upon proceeding to the nearest appropriate repair yard. Where release has been refused or made conditional, the flag State of the vessel must be promptly notified, and may seek release of the vessel in accordance with Part XV.
2. States shall co-operate to develop procedures for the avoidance of unnecessary physical inspection of vessels at sea.

Article 227

Non-discrimination with respect to foreign vessels

In exercising their rights and performing their duties under this Part, States shall not discriminate in form or in fact against vessels of any other State.

Article 228

Suspension and restrictions on institution of proceedings

1. Proceedings to impose penalties in respect of any violation of applicable laws and regulations or international rules and standards relating to the prevention, reduction and control of pollution from vessels committed by a foreign vessel beyond the territorial sea of the State instituting proceedings shall be suspended upon the taking of proceedings to impose penalties in respect of corresponding charges by the flag State within six months of the date on which proceedings were first instituted, unless those proceedings relate to a case of major damage to the coastal State or the flag State in question has repeatedly disregarded its obligations to enforce effectively the applicable international rules and standards in respect of violations committed by its vessels. The flag State shall in due course make available to the State previously instituting proceedings a full dossier of the case and the records of the proceedings, whenever the flag State has requested the suspension of proceedings in accordance with this article. When proceedings instituted by the flag State have been brought to a conclusion, the suspended proceedings shall be terminated. Upon payment of costs incurred in respect of such proceedings, any bond posted or other financial security provided in connection with the suspended proceedings shall be released by the coastal State.
2. According to international law on foreign vessels which are not instituted after the expiry of three years from the date on which the violation was committed, and shall not be taken by any State in the event of proceedings having been instituted by another State subject to the provisions set out in paragraph 1.
3. The provisions of this article are without prejudice to the right of the flag State to take any measures, including proceedings to impose penalties, according to its laws irrespective of prior proceedings by another State.

Article 229 Institution of civil proceedings

Nothing in this Convention affects the institution of civil proceedings in respect of any claim for loss or damage resulting from pollution of the marine environment.

Article 230

Monetary penalties and the observance of recognized rights of the accused

1. Monetary penalties only may be imposed with respect to violations of national laws and regulations or applicable international rules and standards for the prevention, reduction and control of pollution of the marine environment, committed by foreign vessels beyond the territorial sea.

2. Maritime penalties only may be imposed with respect to violations of national laws and regulations on applicable international rules and standards for the prevention, reduction and control of pollution of the marine environment, committed by foreign vessels in the territorial sea, except in the case of a wilful and serious act of pollution in the territorial sea.

3. In the conduct of proceedings in respect of such violations committed by a foreign vessel which may result in the imposition of penalties, recognized rights of the accused shall be observed.

Article 231

Notification to the flag State and other States concerned

States shall promptly notify the flag State and any other State concerned of any measures taken pursuant to section 6 against foreign vessels, and shall submit to the flag State all official reports concerning such measures. However, with respect to violations committed in the territorial sea, the foregoing obligations of the coastal State apply only to such measures as are taken in proceedings. The diplomatic agents or consular officers and where possible the maritime authority of the flag State, shall be immediately informed of any such measures taken pursuant to section 6 against foreign vessels.

Article 232

Liability of States arising from enforcement measures

States shall be liable for damage or loss attributable to them arising from measures taken pursuant to section 6 when such measures are unlawful or exceed those reasonably required in the light of available information. States shall provide for recourse in their courts for actions in respect of such damage or loss.

Article 233

Safeguards with respect to straits used for international navigation

Nothing in sections 5, 6 and 7 affects the legal regime of straits used for international navigation. However, if a foreign ship other than those referred to in section 10 has committed a violation of the laws and regulations referred to in article 42, paragraph 1(a) and (b), causing or threatening major damage to the marine environment of the straits, the States bordering the straits may take appropriate enforcement measures and if so shall respect mutatis mutandis the provisions of this section.

2. Maritime penalties only may be imposed with respect to violations of national laws and regulations on applicable international rules and standards for the prevention, reduction and control of pollution of the marine environment, committed by foreign vessels in the territorial sea, except in the case of a wilful and serious act of pollution in the territorial sea.

3. In the conduct of proceedings in respect of such violations committed by a foreign vessel which may result in the imposition of penalties, recognized rights of the accused shall be observed.

Article 234

Notification to the flag State and other States concerned

States shall promptly notify the flag State and any other State concerned of any measures taken pursuant to section 6 against foreign vessels, and shall submit to the flag State all official reports concerning such measures. However, with respect to violations committed in the territorial sea, the foregoing obligations of the coastal State apply only to such measures as are taken in proceedings. The diplomatic agents or consular officers and where possible the maritime authority of the flag State, shall be immediately informed of any such measures taken pursuant to section 6 against foreign vessels.

Article 235

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States shall be liable for damage or loss attributable to them arising from measures taken pursuant to section 6 when such measures are unlawful or exceed those reasonably required in the light of available information. States shall provide for recourse in their courts for actions in respect of such damage or loss.

Article 236

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Article 237

Ice-covered areas

Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of pollution from vessels in ice-covered areas within the limits of its economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year, create obstructions to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and protection of the marine environment based on the best available scientific evidence.

Article 238

SECTION 9. RESPONSIBILITY AND LIABILITY

Article 239

Responsibility and liability

1. States are responsible for the fulfillment of their international obligations concerning the protection and preservation of the marine environment. They shall be liable in accordance with international law.
2. States shall ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or judicial persons under their jurisdiction.
3. With the objective of assuring prompt and adequate compensation in respect of all damage caused by pollution of the marine environment, States shall co-operate in the implementation of existing international law and the further development of international law relating to responsibility and liability for the assessment of and compensation for damage and the settlement of related disputes, as well as, where appropriate, development of criteria and procedures for payment of adequate compensation, such as compulsory insurance or compensation funds.

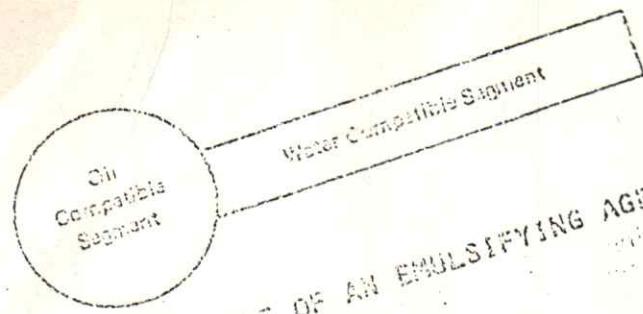
SECTION 10. SOVEREIGN IMMUNITY

Article 236

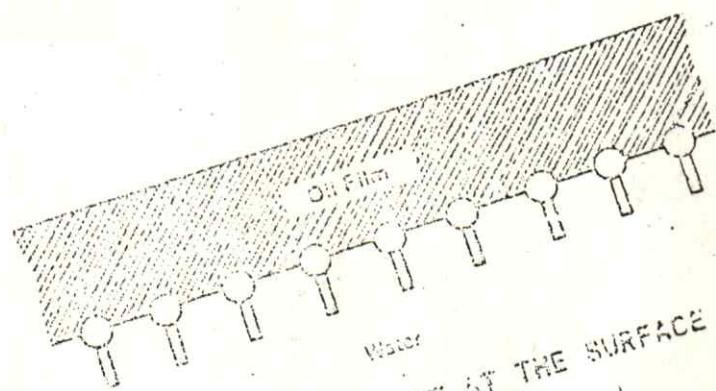
Sovereign immunity

The provisions of this Convention regarding the protection and preservation of the marine environment do not apply to any warship, naval auxiliary, other vessels or aircraft owned or operated by a State and used, for the time being, only on government non-commercial service. However, each State shall ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such vessels or aircraft owned or operated by it, that such vessels or aircraft act in a manner consistent, so far as is reasonable and practicable, with this Convention.

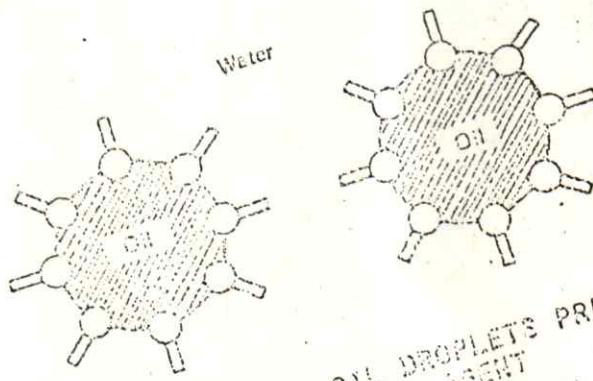
GAMBAR - I



2. MOLECULE OF AN EMULSIFYING AGENT



3. EMULSIFYING AGENT AT THE SURFACE
OF AN OIL FILM



4. COAGULATION OF OIL DROPLETS PREVENTED
BY EMULSIFYING AGENT

Figure 1. How Dispersants Work

GAMBAR - II

