

MARINE OIL POLLUTION AND INSURANCE

Seminar - New Technologies and Management
for Greener Shipping Webinar, 3 Nov 2021

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Stephen Li

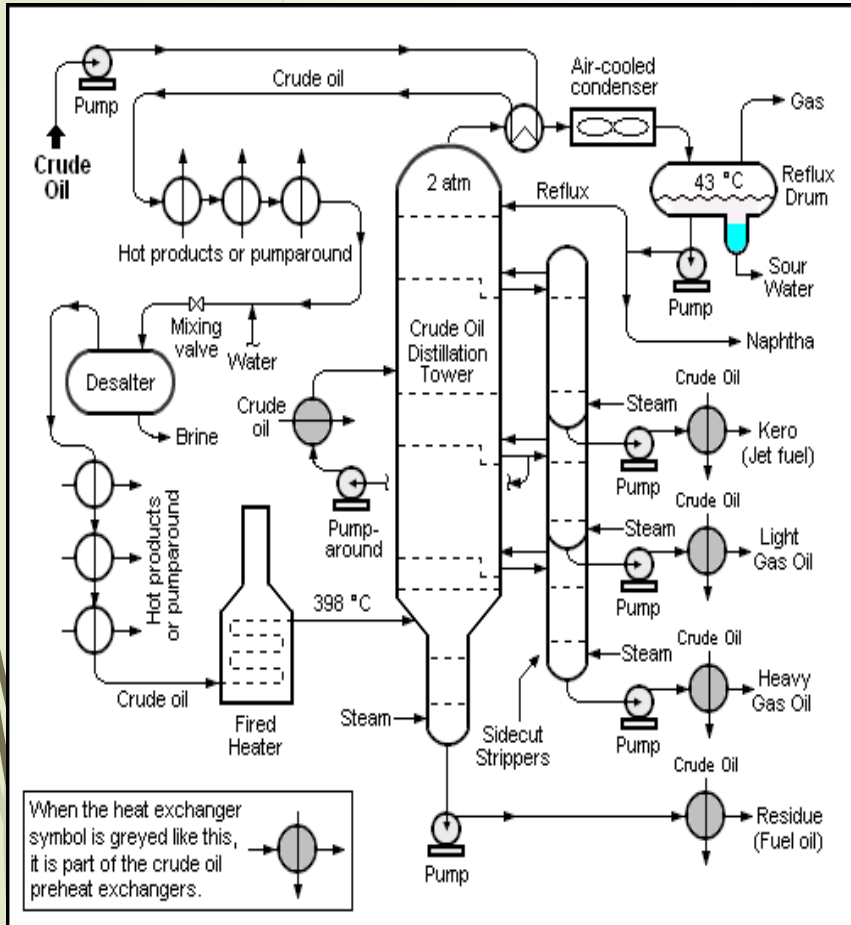
Content

- Some statistics on oil pollution accidents
- Brief history and introduction of Marpol (Control)
- Overview of international regimes (Liability Insurance)
- Tankers: The Civil Liability and Fund Conventions
- Non-Tankers: The Bunkers Convention
- USA – Oil Pollution Act 90





Crude Oil – refinery factory



- **Light distillates**
- Liquefied petroleum gas (LPG)
- Light naphtha
- Gasoline (petrol)
- Heavy naphtha
- **Middle distillates**
- Kerosene
- Automotive and rail-road diesel fuels
- Residential heating fuel
- Other light fuel oils
- **Heavy distillates**
- Heavy fuel oils
- Wax
- Lubricating oils
- Asphalt

EXXON VALDEZ

- ▶ The Exxon Valdez oil spill occurred in Prince William Sound, Alaska on March 24, 1989 as the oil tanker struck the Sound's Bligh Reef and spilled 37,000 tonnes of crude oil over the next few days.
- ▶ Litigation was filed on behalf of 38,000 litigants. In 1994, a jury awarded plaintiffs US\$287 million in compensatory damages and US\$5 billion in punitive damages.
- ▶ As of December 15, 2009, Exxon had paid the entire \$507.5 million in punitive damages, including lawsuit costs, plus interest, which were further distributed to thousands of plaintiffs.

Oil Pollution Incidents

Exxon Valdez Oil Spill

In 1992 the U.S. Coast Guard declared the cleanup complete

Spent over \$4.3 billion as a result of the accident

Implemented an operational management system to prevent future incidents



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Oil Pollution Incidents - Torrey Canyon (1967)



Pollution

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Major oil spill incidents have caused development of laws governing pollution liability

“TORREY CANYON” (1967, off Land’s End on the south-western tip of England) lead to

- the CLC 1969
- the Fund Convention 1971



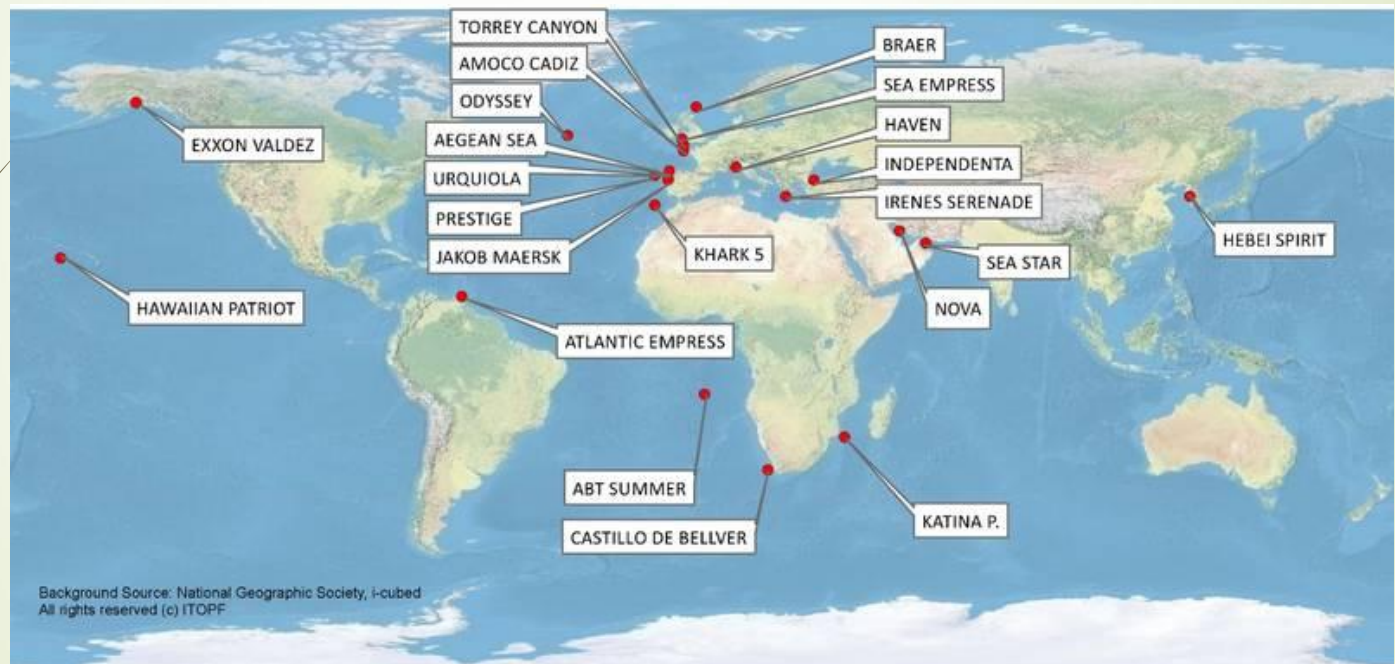
Top Oil Spill Incidents

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	Ship Name	Year	Location	Spill Size (tonnes)
1	<u>ATLANTIC EMPRESS</u>	1979	Off Tobago, West Indies	287,000
2	<u>ABT SUMMER</u>	1991	700 nautical miles off Angola	260,000
3	<u>CASTILLO DE BELLVER</u>	1983	Off Saldanha Bay, South Africa	252,000
4	<u>AMOCO CADIZ</u>	1978	Off Brittany, France	223,000
5	<u>HAVEN</u>	1991	Genoa, Italy	144,000
6	<u>ODYSSEY</u>	1988	700 nautical miles off Nova Scotia, Canada	132,000
7	<u>TORREY CANYON</u>	1967	Scilly Isles, UK	119,000
8	<u>SEA STAR</u>	1972	Gulf of Oman	115,000
9	<u>IRENES SERENADE</u>	1980	Navarino Bay, Greece	100,000
10	<u>URQUIOLA</u>	1976	La Coruna, Spain	100,000
11	<u>HAWAIIAN PATRIOT</u>	1977	300 nautical miles off Honolulu	95,000

Location of Top Oil Spills

(Most are near dense populated regions)



Large oil pollution threat posed by shipping industry

1. Two types:

- a) oil spills during accident, and
- b) operational discharge

2. Three-fold intervention:

- a) prevention,
- b) response (Shipboard Oil Pollution Emergency Plan to be provided onboard (SOPEP) and drills to exercise)
- c) liability

MARPOL

International Convention for the Prevention of Marine Pollution from Ships, 1973 as modified by the Protocol of 1978 (MARPOL 73/78)

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Before the introduction of Marpol, for marine oil pollution it was controlled by “The International Convention for the Prevention of Pollution of the Sea by Oil, 1954”

International Convention for the Prevention of Pollution (MARPOL)



ANNEX I

Regulations for the Prevention of Pollution by Oil
(entered into force 2 October 1983)

Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk
(entered into force 2 October 1983)

ANNEX II



ANNEX III

Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form
(entered into force 1 July 1992)

Prevention of Pollution by Sewage from Ships
(entered into force 27 September 2003)

ANNEX IV

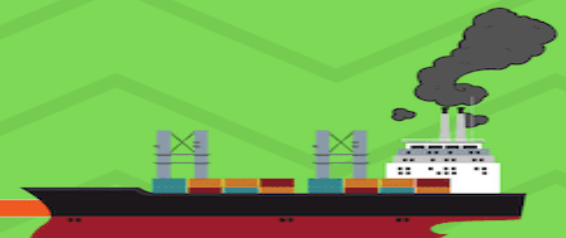


ANNEX V

Prevention of Pollution by Garbage from Ships
(entered into force 31 December 1988)

Prevention of Air Pollution from Ships
(entered into force 19 May 2005)

ANNEX VI



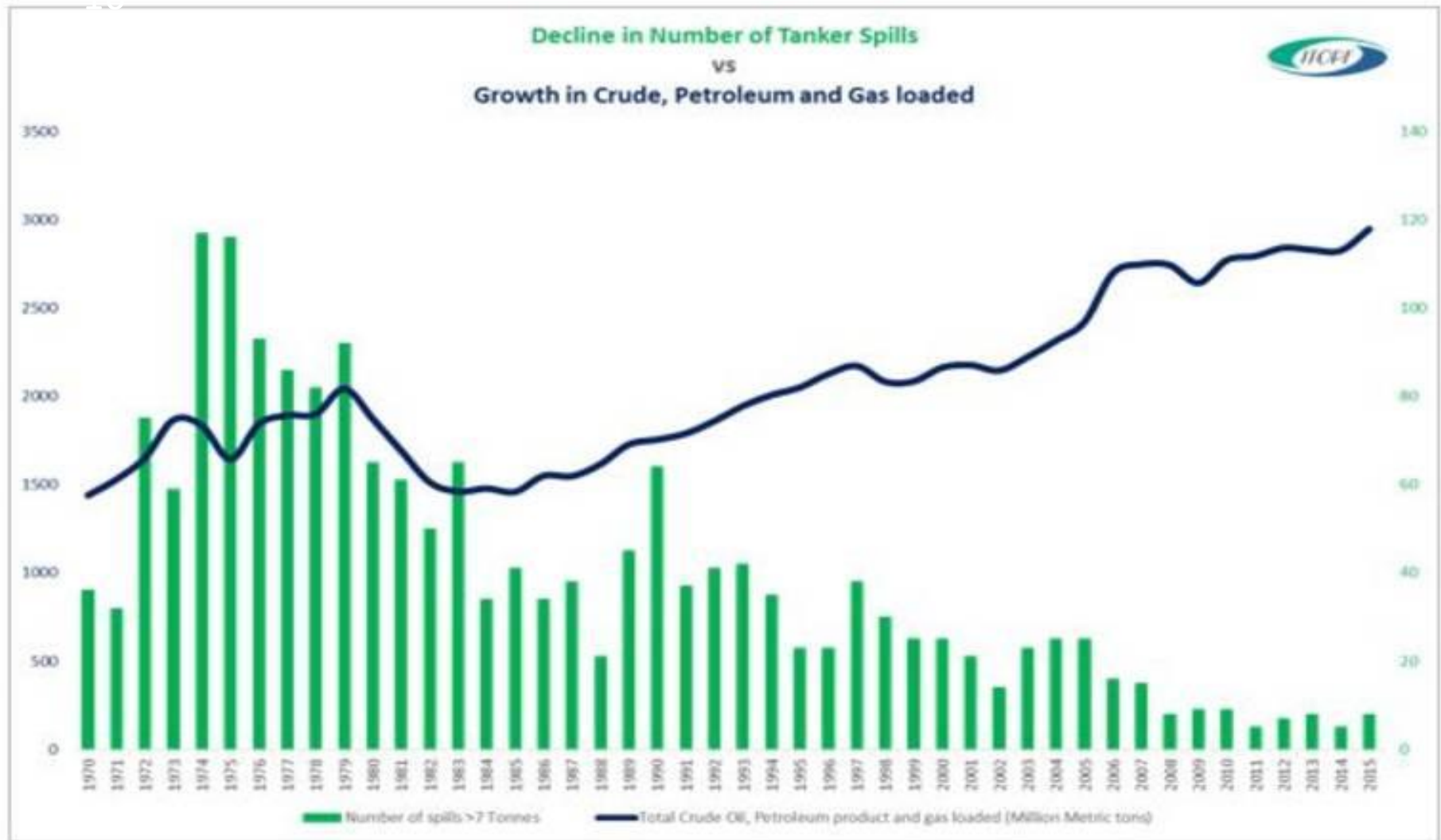
- Noxious Liquid Substance refers to chemical in general

Category X	the most severe pollution hazards
Category Y	moderate pollution hazards
Category Z	low pollution hazards
Category OS	no hazards when discharged from tank cleaning or deballasting operations

- 'harmful substances' are those substances that are identified as '**marine pollutants**' in the International Maritime Dangerous Goods (IMDG) code

- Ever since the introduction of Marpol Annex 1 and its amendments on the operation control and safety construction of oil tanker, the number of Oil Pollution incidents have been significantly reduced, despite the fact that the demand of seaborne oil trade continued to increase.

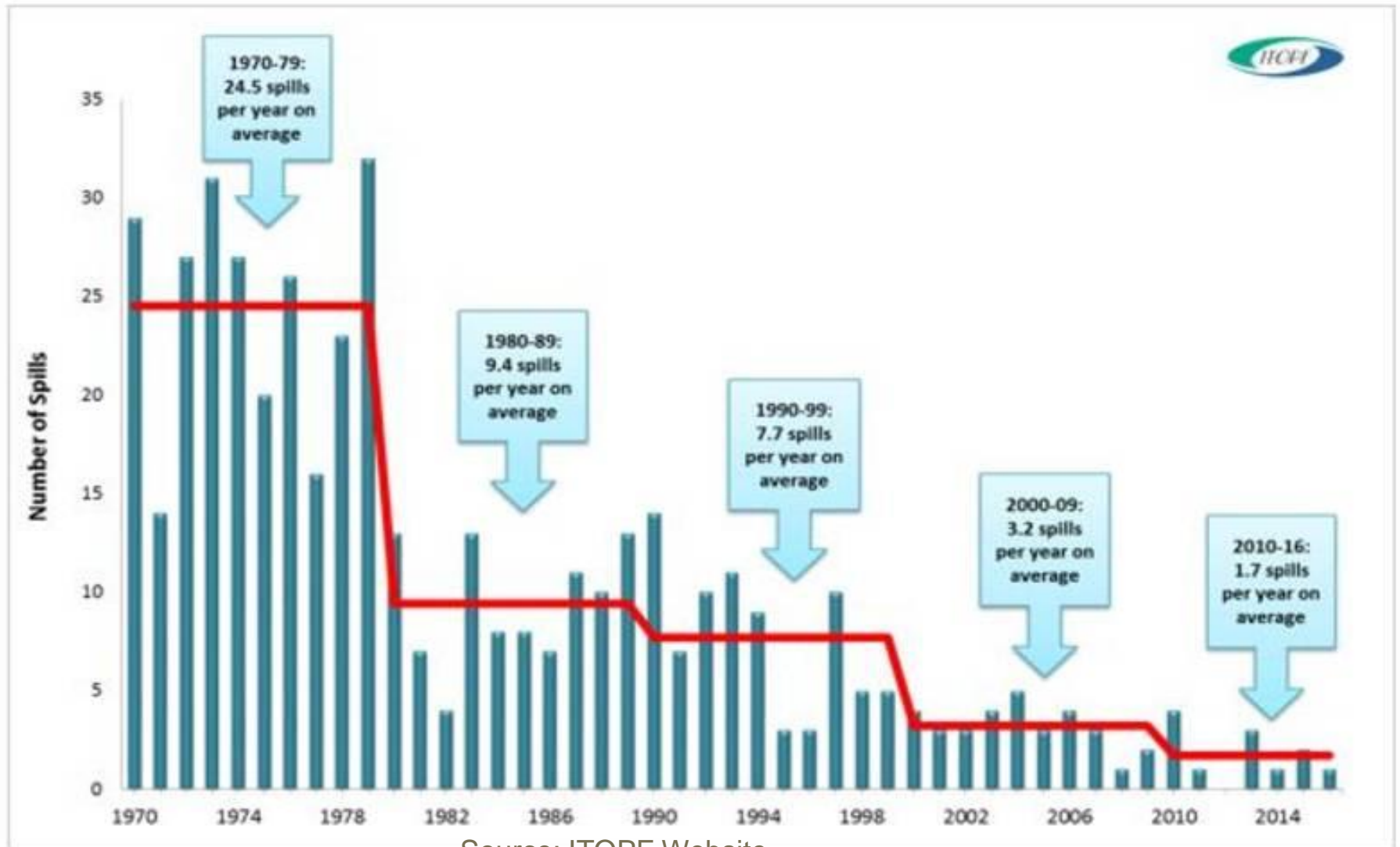
Seaborne Oil Trade & Number of Tanker Spills



Source: ITOPI Website

Number of Oil Pollution Incidents

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MARPOL 73/78

ANNEX I

Regulations for the Prevention of Pollution by Oil

- Entered into force on 2 October 1983
- Revised Annex I entered into force 1 January 2007
- Covers prevention of pollution by oil from operational measures as well as from accidental discharges;
- The 1992 amendments to Annex I made it mandatory for new oil tankers to have double hulls and brought in a phase-in schedule for existing tankers to fit double hulls, which was subsequently revised in 2001 and 2003.

MARPOL 73/78



Special Areas - Any discharge into the sea of oil or oily mixtures from ships of 400 GT and above is illegal (Also Southern South Africa)

Marpol Annex 1

Control Measures

- To meet the requirement to accede MARPOL 73/78, a provision of small number (1-3) of land and/or floating reception facilities jointly funded on regional basis should be considered as an alternative and,
- Consider load-on-top system for the offshore crude loading terminals as the most cost effective method of satisfying MARPOL 73/78 requirements.

Operation of Oil Tanker

- Loading of crude oil
- Inert Gas System
- Discharging
- Tank cleaning using Crude Oil as solvent
- Follow by using water for final clean up
- Where will the cleaning water and mixtures go?

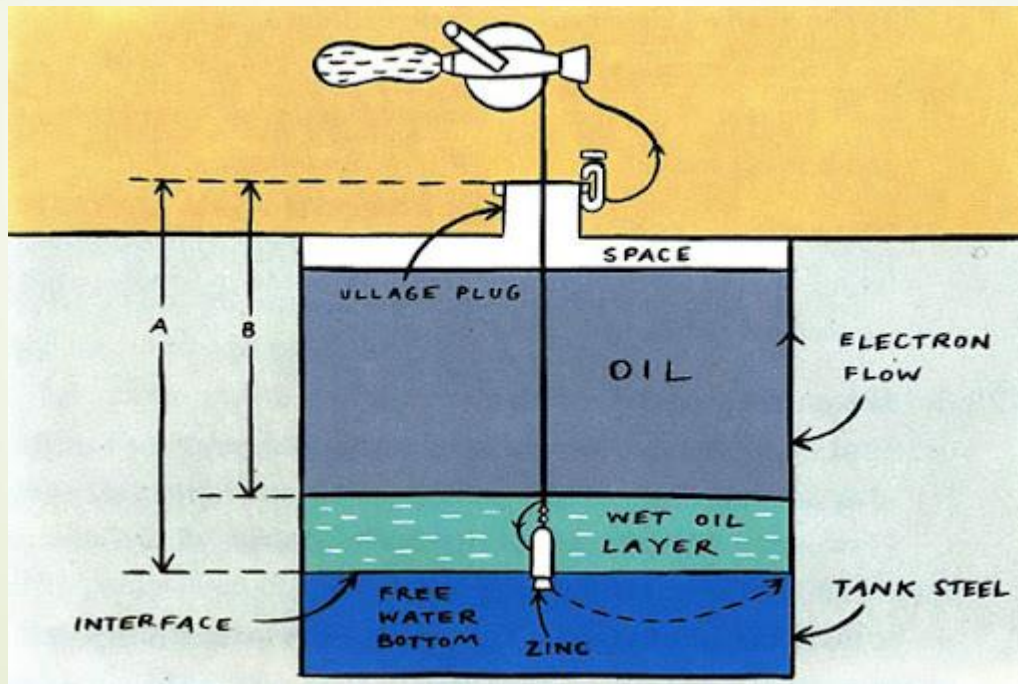
Pollution (operational discharge)

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- Load on top is the **shipboard procedure of collecting and settling water and oil mixtures**, resulting from ballasting and tank cleaning operations (usually in a special slop tank or tanks), and subsequently loading cargo on top of and pumping the mixture ashore at the discharge port.

- Load on top (Slop tank)
- Reception Facilities



All ships:

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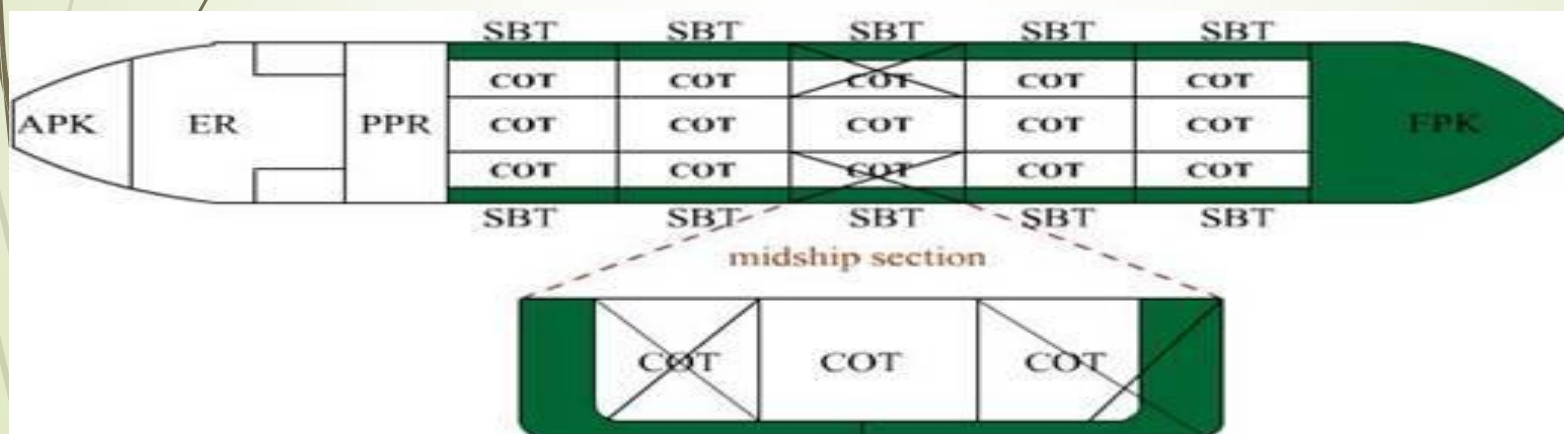
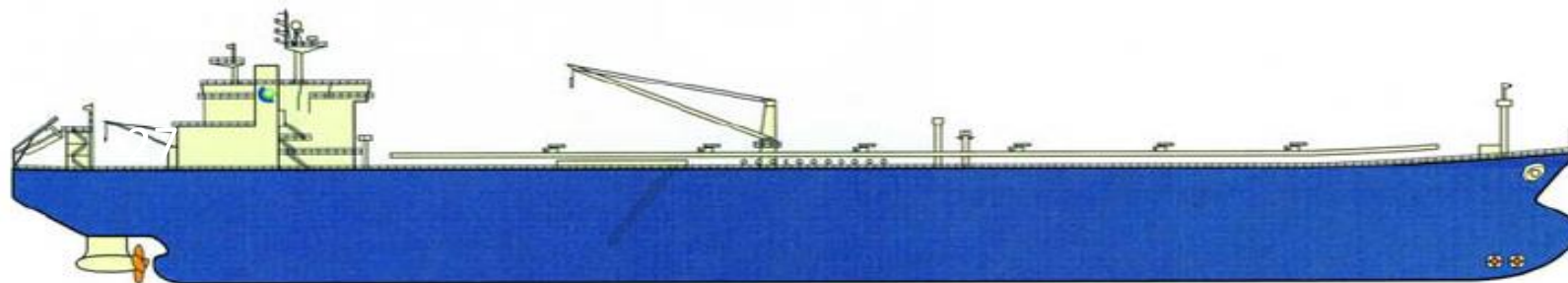
1. Oil filtering equipment – Oily Water Separator.
2. 15 PPM alarm arrangements.
3. Standard discharge connection.

Tanker specific:

- 1. Oil/ water interface detector
- 2. Crude Oil Washing (COW) system, if fitted
- 3. Oil discharge monitoring and control
- 4. Cargo and ballast pumping, piping and discharge arrangements.
- 5. Engine room/ bilge holding tank to slop tank pumping and piping arrangement.



- ➔ In 1992 MARPOL was amended to make it mandatory for tankers of 5,000 dwt and more ordered after 6 July 1993 to be fitted with double hulls, or an alternative design approved by IMO (regulation 19 in Annex I of MARPOL)



About the Pollution Insurance Regime

The “AMOCO CADIZ” (1978, off France) incident led to

the CLC 1984 Protocol (**never come into force**)

the FC 1984 Protocol (**never come into force**)

the CLC 1992

the FC 1992

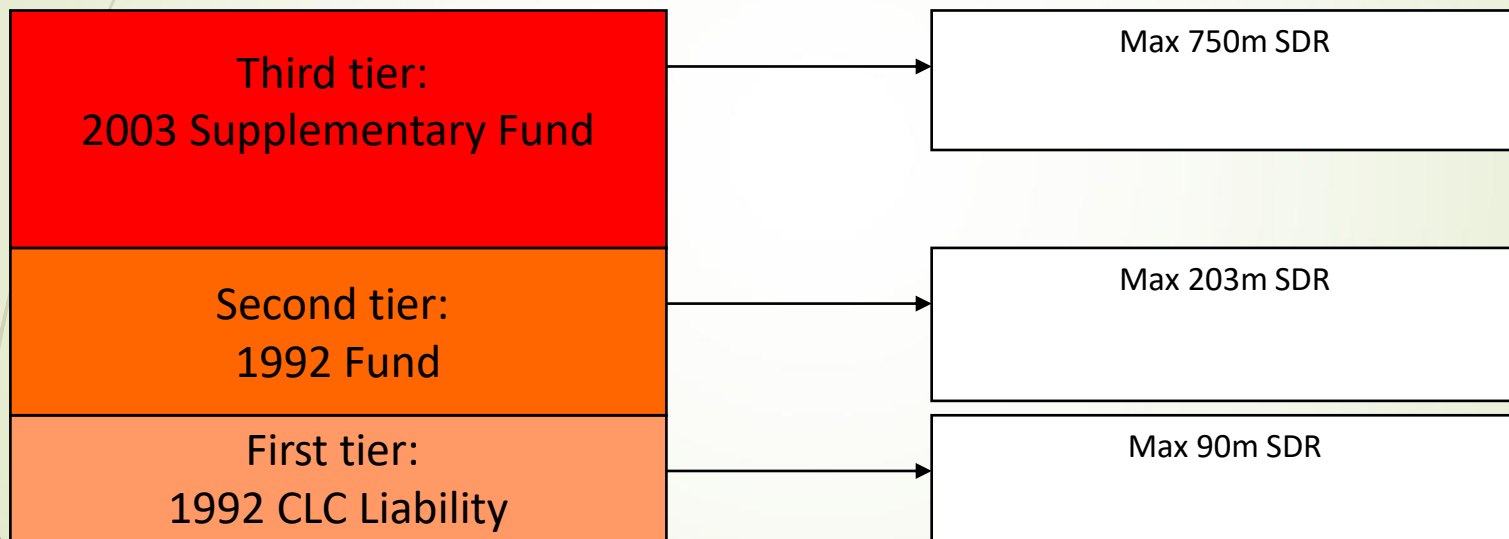
The “EXXON VALDEZ” (1989, off Alaska) incident led to
Oil Pollution Act 1990 (OPA 90)

International oil pollution liability regime

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- a) inadequacy of the global limitation regime
- b) international response:
 - i. 1969 Civil Liability for Oil Pollution Convention (CLC):
 - 1976 CLC Protocol,
 - (1984 CLC Protocol), and
 - 1992 CLC Protocol (with 2000 amendment)
 - ii. 1971 Fund Convention:
 - 1976 Fund Protocol,
 - (1984 Fund Protocol),
 - 1992 Fund Protocol (with 2000 amendment), and
 - 2003 Supplementary Fund Protocol
 - iii. Voluntary agreements
 - STOPIA (Small Tanker Oil Pollution Agreement)
 - TOPIA (Tanker Oil Pollution Agreement)

Tier system



(1 SDR=US\$1.41 As at 5 Oct 2021)

International Convention on Civil Liability for Oil Pollution Damage (CLC)

Scope of Application

- The CLC only applies to **persistent oil** from tankers.
- This also includes a spill of persistent bunkers provided that the tanker is not in ballast – the CLC 1969.
- The CLC 1992 extends to cover spills from “sea-going vessels constructed or adapted to carry oil in bulk as cargo or in ballast following such carriage. .
- Persistent oil includes crude oil, fuel oil, heavy diesel oil and lubricating oil.
- Damage caused by non-persistent oil is not covered by CLC convention. Non-persistent oil includes gases, gasoline, kerosene (e.g. aviation fuels).

International Convention -

Liability of the Shipowner

- The CLC imposes a strict liability (not necessary for the prosecution to prove the existence of mens rea) on the Shipowner for any pollution damage caused by his ship as a result of an incident unless the circumstances fall within one of the stated exceptions from liability.
- Strict liability means that the Shipowner will be liable, irrespective of any fault on his part.
- The liability is joint and several when pollution damage was caused by two or more ships.



Types of loss or damage covered by CLC

- Cleaning up expenses
- Property damage including consequential loss.
- Under certain circumstances pure economic loss might be admissible.
- Preventive measures after discharge/escape of oil – reasonableness. (The CLC 1992 extends to the incident which creates an imminent threat of causing pollution damage.)
- The CLC 1992 also includes Impairment of the environment but limited to cost of reasonable measures of restoration.



International Conventions - CLC

Limit of Liability

CLC 1992

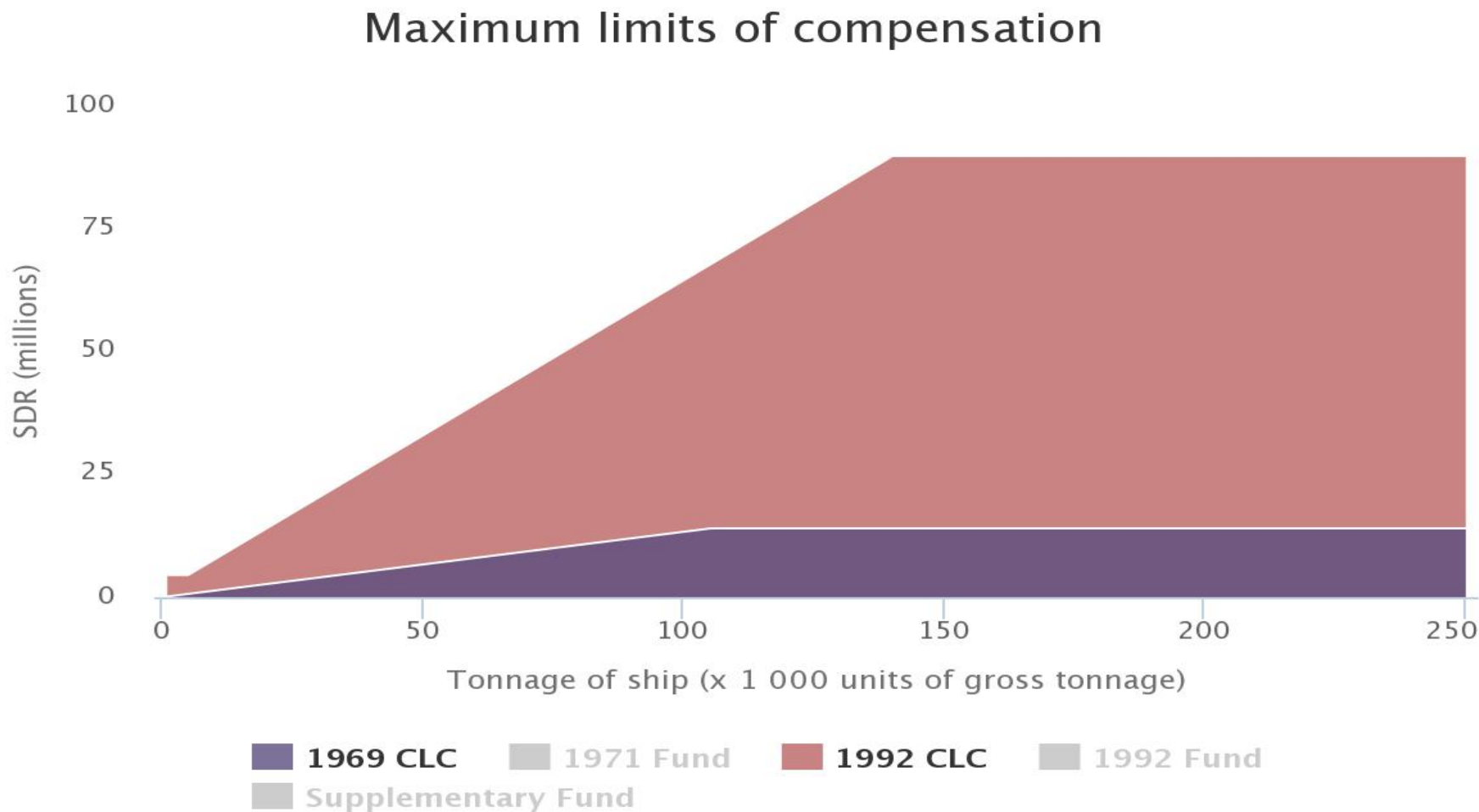
- The 2000 Amendments
Adoption: 18 October 2000
Entry into force: 1 November 2003
- The amendments raised the compensation limits by 50 percent compared to the limits set in the 1992 Protocol, as follows:

International Conventions - CLC

Limit of Liability

- SDR 4.51 million for ships of up to 5000tons
- SDR 4.51 million plus SDR 631 for every ton above 5,000 tons for ships between 5000 and 140000 tons
- An overall maximum of SDR 89.77 million for ships of 140,000 tons and above

Comparison of Limits – 1969 and 1992 CLC (2000 amendment)



International Conventions - CLC

Compulsory Insurance and Certification

- All ships registered in contracting states which carry more than 2,000 tons of oil in bulk as cargo are required to maintain insurance or other financial security
- Insurance is compulsory not only for ships registered in CLC states but also for other ships if they are trade to those states.
- Each ship which falls within CLC's compulsory insurance provisions must be issued with a certificate attesting that appropriate cover is in force – P&I Club can issue a Blue Card which certifies that a policy of insurance is in force for member to apply CLC certificates from flag state.
- Insurer or other party named in the certificate as guarantor can be sued directly for pollution damage claims.

Sample of CLC Blue Card

CLC Blue Card.pdf - Adobe Acrobat Reader DC

File Edit View Window Help

Home Tools CLC Blue Card.pdf x Sign In

1 / 1 130%

NOT TRANSFERABLE

No.

To:

**CERTIFICATE FURNISHED AS EVIDENCE OF INSURANCE PURSUANT TO
ARTICLE VII OF THE INTERNATIONAL CONVENTION ON CIVIL LIABILITY
FOR OIL POLLUTION DAMAGE, 1969 AND ARTICLE VII OF THE
INTERNATIONAL CONVENTION ON CIVIL LIABILITY FOR OIL POLLUTION
DAMAGE, 1992**

Name of Ship:

Distinctive Number or Letters:

Port of Registry:

Name and Principal Place of business of the Registered Owner:

IMO Number (where applicable):

THIS IS TO CERTIFY that there is in force in respect of the above-named ship while in the above ownership a policy of insurance satisfying the requirements of (A) Article VII of the International Convention on Civil Liability for Oil Pollution Damage, 1969 and (B) Article VII of the International Convention on Civil Liability for Oil Pollution Damage, 1992 where and when applicable.

Period of Insurance: from to

Provided always that the insurer may cancel this Certificate by giving three months written notice to the above authority whereupon the liability of the insurer hereunder shall cease as from the date of expiry of the said period of notice but only as regards incidents arising thereafter.

Date:

This certificate has been issued for and on behalf of the insurer:

8.27 x 11.70 in

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Second Tier Compensation – Fund Conventions (FC)

- International Convention on the Establishment of an International Fund for Compensation of Oil Pollution Damage 1992 (The 1992 Fund Convention)
- Supplementary to 1992 CLC – regime for compensating victims who do not obtain full compensation under CLC; because CLC compensation is insufficient,
- Financed by contributions levied on oil importers (>150,000 tonnes)
- Limit after 1st November 2003 – SDR 203m (approx \$281m at today's exchange rate) – includes CLC limit

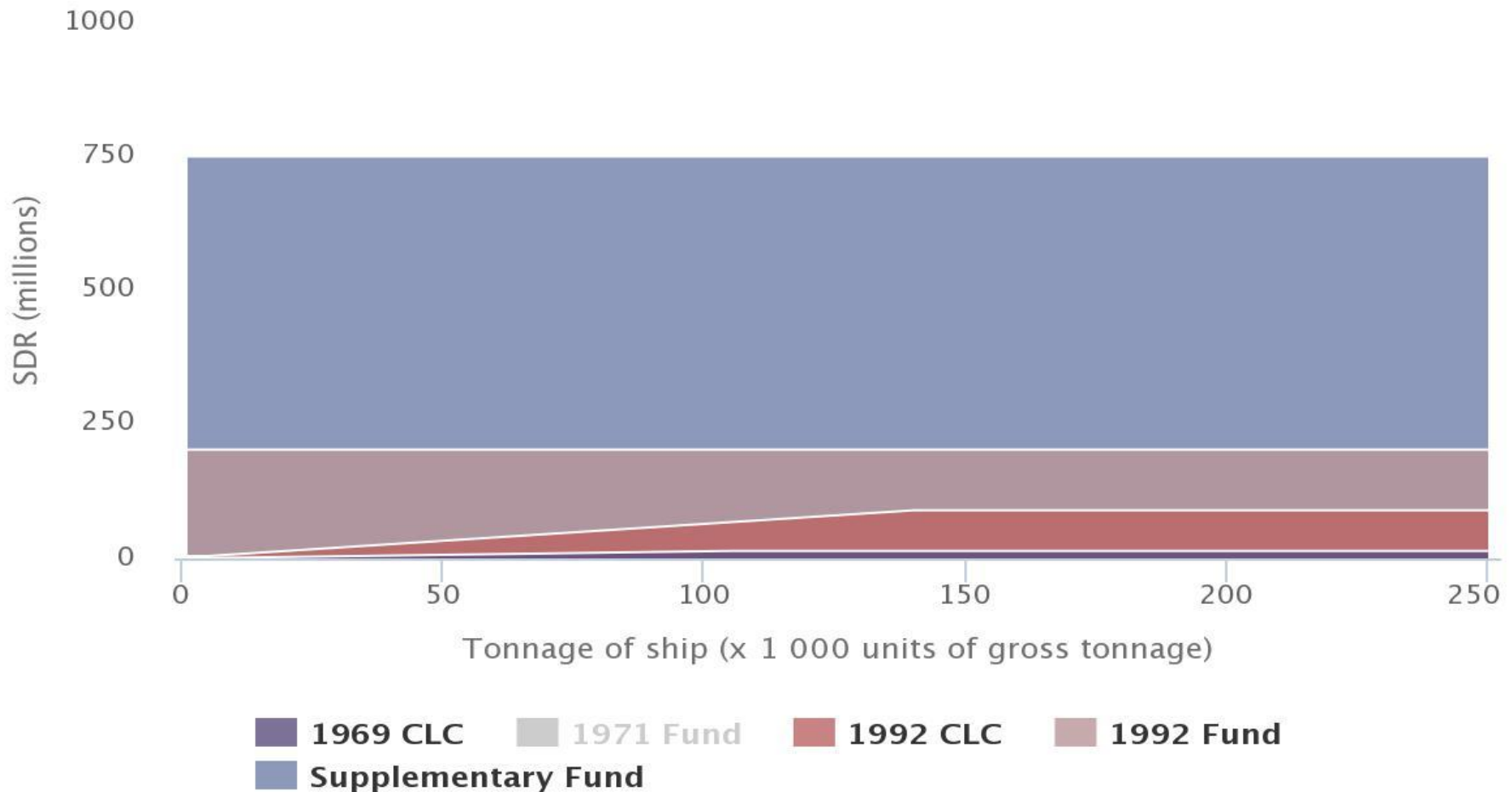
Third Tier Compensation – The 2003 Supplementary Fund Protocol

- Supplementary Fund 2003 after 3rd March 2005
- A third tier of compensation when the protection under the 1992 CLC and the 1992 FC is inadequate
- Only provide compensation for pollution damage suffered in a Contracting State to the 2003 Supplementary Protocol
- limit per incident SDR 750m (approx \$1,037m at today's exchange rate)

Limit of Compensation – Comparison

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Maximum limits of compensation



International Conventions – Bunker Conventions

Scope of Application

- International Convention on Civil for Bunker Oil Pollution Damage (Bunkers Convention) came into force in 2008.
- The shipowner at the time of an incident shall be liable for pollution damage caused by any bunker oil on board or originating from the ship
- Owner – including the registered owner, bareboat charterer, manager and operator of the ship.
- Ship – any seagoing vessel and seaborne craft of any type whatsoever.
- Bunker oil - any hydrocarbon mineral oil including lubricating oil, used or intended to be used for the operation or propulsion of the ship

International Conventions – Bunker Conventions

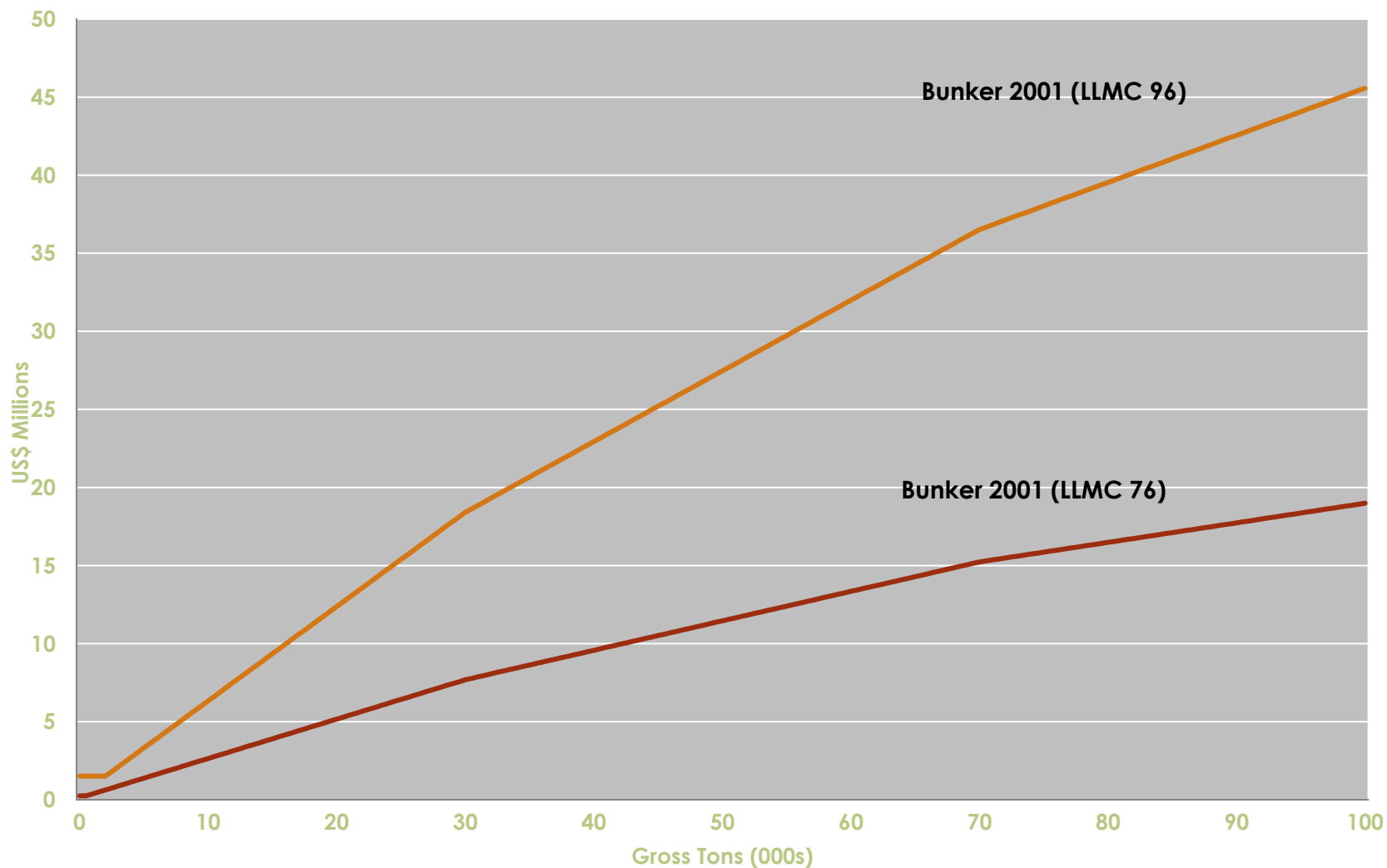
Defence

Same as CLC, strict liability is imposed on the owner but subject to defences which are expressed in identical language to that used in CLC.

Limitation Liability

- Linked to that applying under the national or international limitation regime, if any, in force in the state where the damage is suffered.
- The aggregate liabilities will be subject to a single limit, which will apply to all claims arising out of an incident, not only bunker pollution.

Limits of compensation under the conventions (Non-tankers)



International Conventions – Bunker Conventions

Compulsory Insurance and Certification

- The owner of any ship of more than 1,000GT to maintain insurance or other financial security to cover his liability for pollution damage.
- Same as CLC, the club can issue a bunker blue card to attesting the vessel's pollution cover for the Member to apply for bunker certificate from the flag state.
- Direct rights against the insurer but limited to an amount equal to the limits of liability under the applicable national or international regime but in all cases not exceeding an amount calculated in accordance with the Convention on Limitation of Liability for Maritime claims 1976 as amended.

The Oil Pollution Act 1990(US)

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The legal framework in the US concerning pollution from ships requires reference to both federal and state law.

- OPA 90 is federal law and was enacted in reaction to the Exxon Valdez oil spill in Alaska in 1989.
- The OPA 90 applies to a responsible party in respect of a ship which oil is discharged or which poses the substantial threat of a discharge of oil.
- Responsible party means any person owning, operating or demise chartering the vessel.



The Oil Pollution Act 1990

- The Responsible Parties (RP) are jointly, severally and strictly liable for oil pollution but subject to the following defences:-
 - an act of God
 - an act of war
 - an act or omission of a third party

Types of loss or damage covered under OPA 1990 include:-

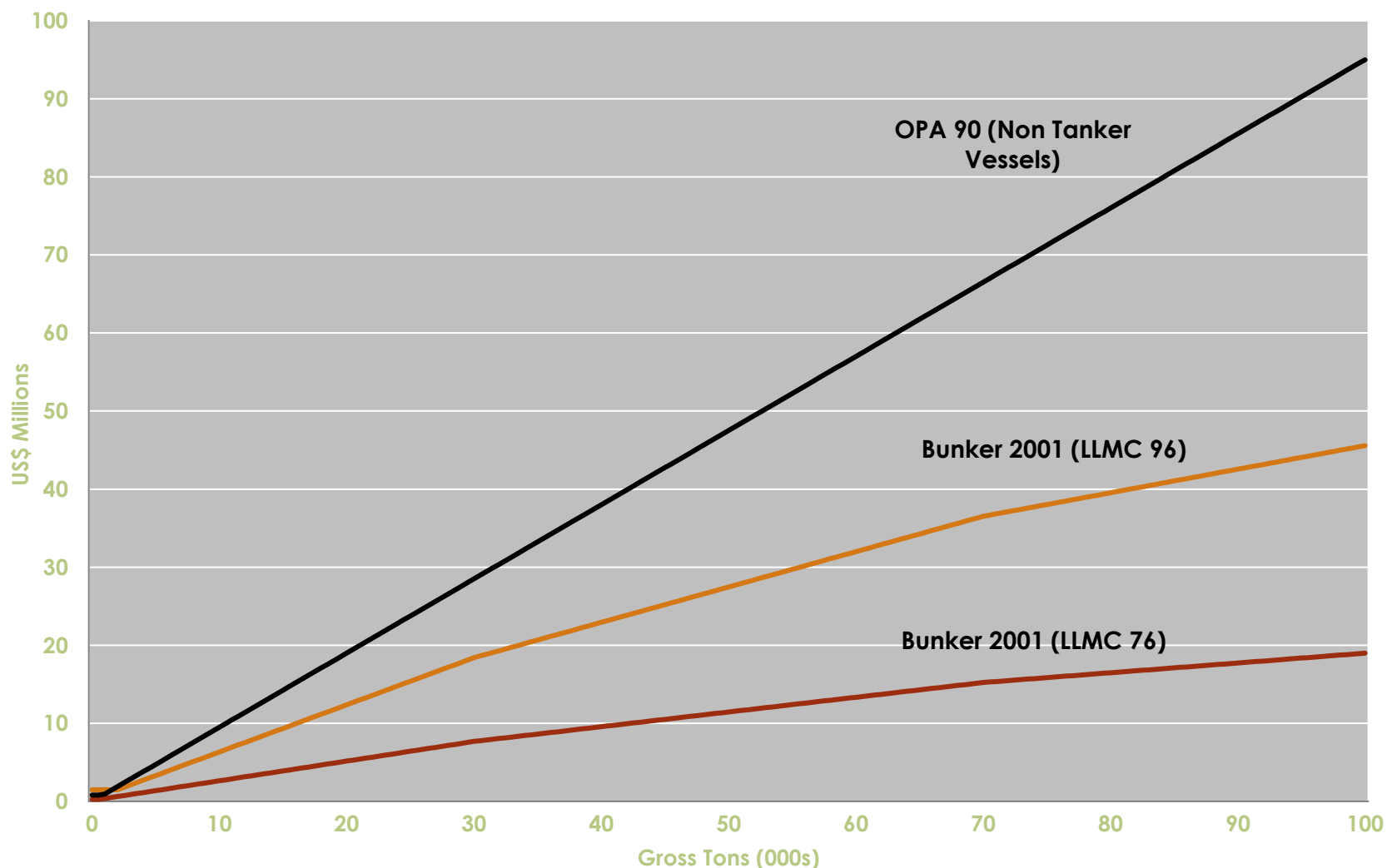
- Removal costs including the cost to prevent, minimise, or mitigate a threat of a discharge of oil
- Natural resources
- Real or personal property
- Subsistence use
- Revenues
- Profits and earning capacity
- Public services



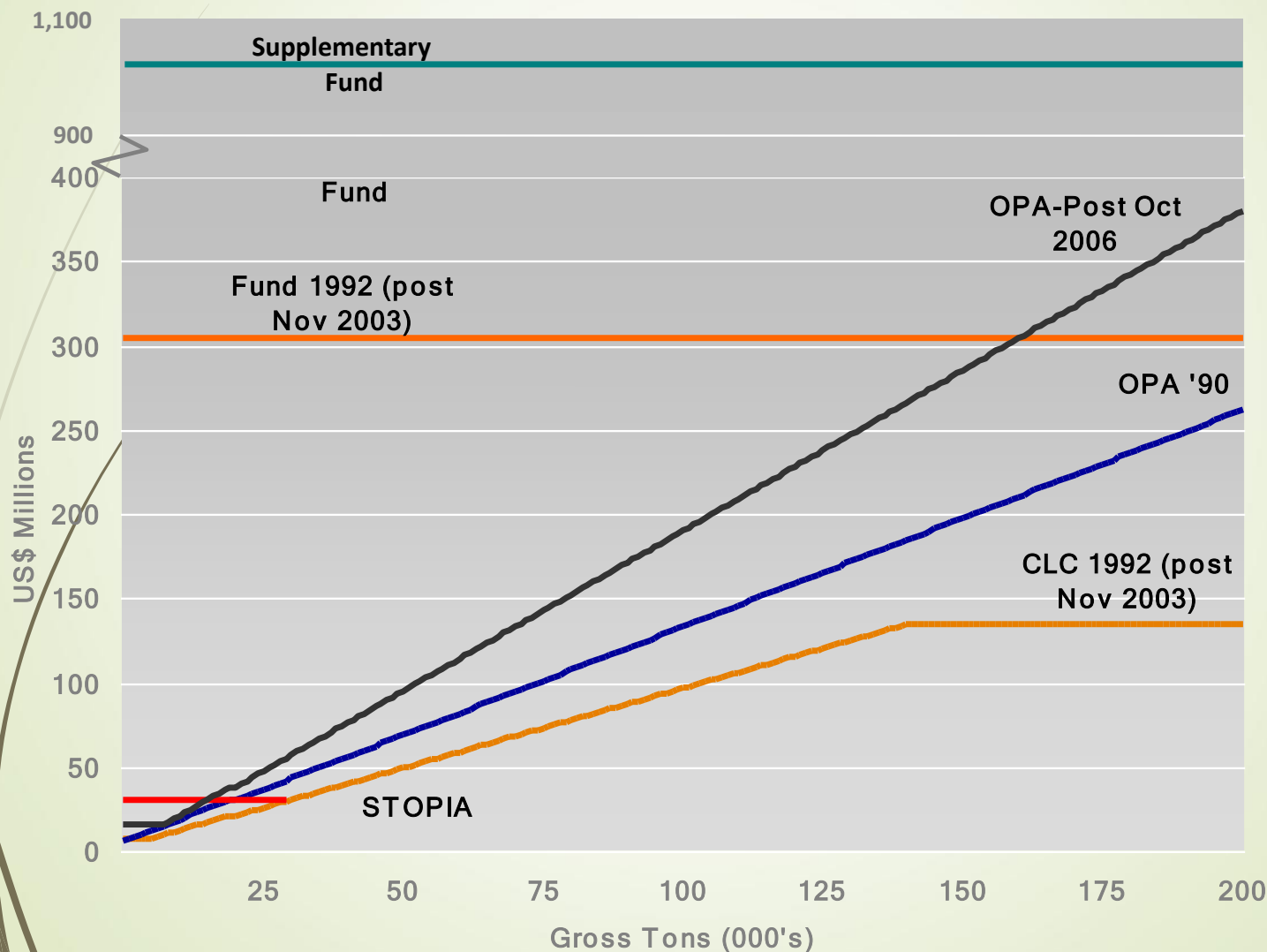
The Oil Pollution Act 1990

- ▶ Limitation – much higher than CLC and Bunker Convention
- ▶ Easier to break limitation (eg. refusal to co-operate or obey an order, failure to report a spill)
- ▶ National Pollution Funds Centre – administers the Oil Spill Liability Trust Fund from which claimants are compensated if the RP does not pay. RP can also obtain reimbursement if they have a defence or are entitled to limit
- ▶ OPA90 is a Federal Law but States can enact their own legislation (State Law, e.g. California)

Limits of compensation under the conventions (Non-tankers)



Limits of compensation under the conventions (tankers)



The Oil Pollution Act 1990

Certificates of Financial Responsibility (“COFR”)

- OPA 90 requires a responsible party for a vessel to have evidence of financial responsibility sufficient to meet its maximum liability for pollution under the Act.
- The form can be
 - Evidence of insurance;
 - Surety bond;
 - Guarantee;
 - Letter of credit;
 - Other evidence of financial responsibility
 - Qualification as self-insurer
- Direct action against the guarantor
- Guarantor can have same defence which would be available to the responsible party including limitation.

The Oil Pollution Act 1990

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Why do the International Group of P&I Clubs not issue the blue card as guarantor?

- The OPA 90 Certificate of Financial Responsibility (COFR) is a national requirement rather than an international one
- Claims are allowed under the OPA 90 which would not be admissible under CLC
- Owners are easily deprived of their right of limitations
- The Trust Fund does not assume responsibility for claims above the owners' limit
- Owners remain exposed to more stringent legislation under State laws.



Thank You!