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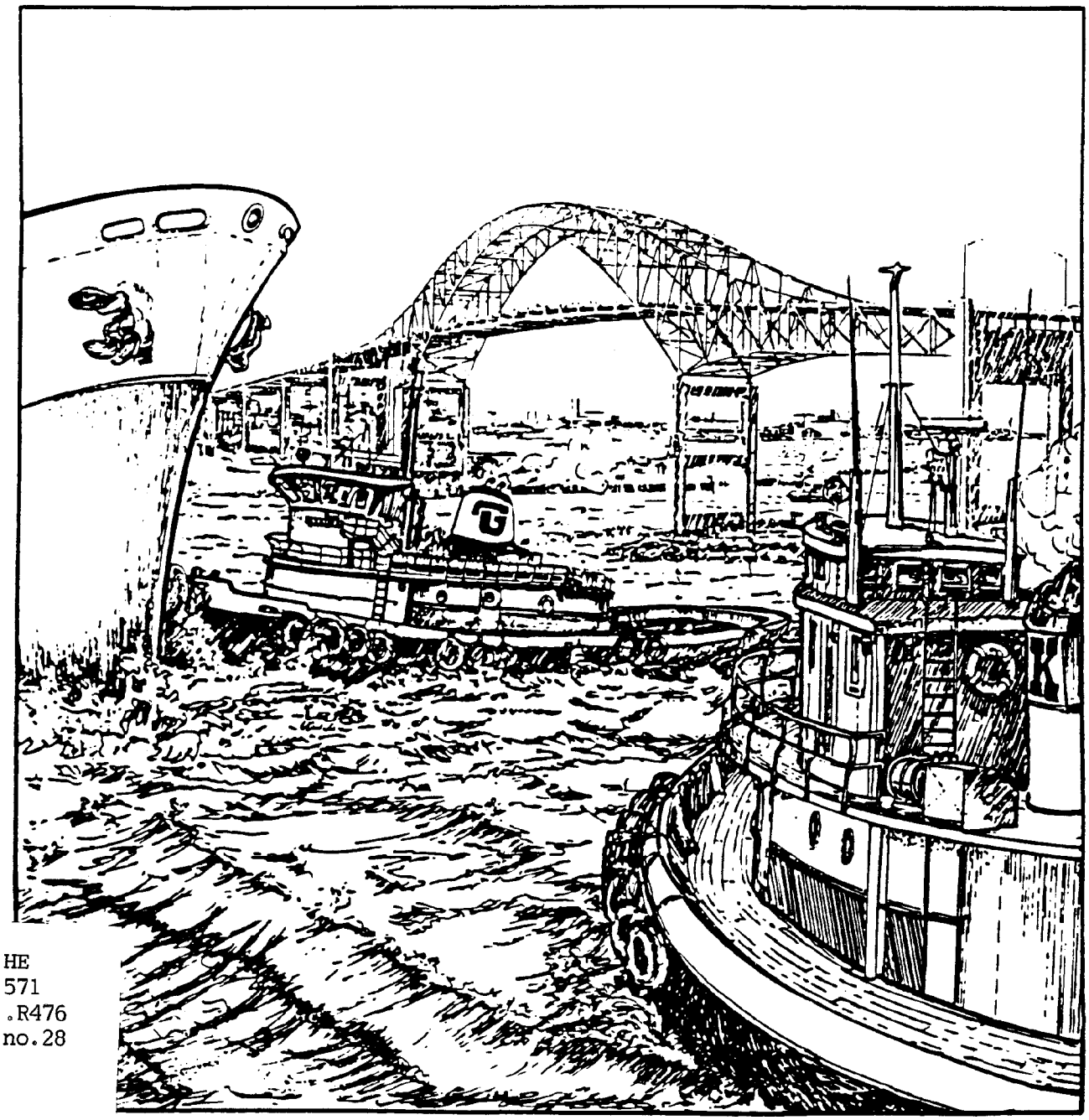
Maritime Administration

Report on Port and Shipping Safety and Environmental Protection

QUARTERLY REPORT
NUMBER 28

JULY 1993



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U.S. Department
of Transportation

**Maritime
Administration**

400 Seventh Street, S.W
Washington, D.C. 20590

June 7, 1993

Dear Colleague:

I am pleased to transmit the 28th quarterly report on safety and environmental protection matters related to ports and shipping. Some highlights covered herein are the following:

1. The 68th session of the Legal Committee (LEG 68) of the International Maritime Organization (IMO) was held at IMO Headquarters in London from March 15-19, 1993. (Item 1-D)

2. The IMO International Conference on Safety of Fishing Vessels (SFV-P/CONF) was held in Torremolinos, Spain, from March 22 - April 2, 1993. (Item 1-E)

3. The 22nd session of the IMO Facilitation Committee (FAL 22) was held at IMO Headquarters in London from April 26-30, 1993. (Item 1-H)

4. On April 8, 1993, the Coast Guard, U.S. Department of Transportation, promulgated regulations to require ballast water management practices for each vessel entering the Great Lakes after operating on waters beyond the Exclusive Economic Zone. (Item 3-H)

5. The U.S. Department of the Navy has published a technical instruction report entitled "Internal Combustion (Gas Turbine and Diesel) Engine Exhaust Emission Study." (Item 4-A)

For further information, please contact the Office of Technology Assessment, (phone: (202) 366-1921), or the Office of Port and Intermodal Development, (phone: (202) 366-4357), Maritime Administration, U.S. Department of Transportation, 400 Seventh Street, SW, Washington, DC 20590.

Sincerely,

Nan Harllee

NAN HARLLEE
Associate Administrator
for Marketing

U.S. DEPARTMENT OF TRANSPORTATION
MARITIME ADMINISTRATION

REPORT
ON
PORT AND SHIPPING
SAFETY AND ENVIRONMENTAL PROTECTION

QUARTERLY REPORT
NUMBER 28

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TABLE OF CONTENTS

		Page
SUMMARY		1
1.	**INTERNATIONAL ACTIVITIES**	3
A.	IMO Subcommittee on Lifesaving, Search and Rescue	3
B.	IMO Subcommittee on Ship Design and Equipment	4
C.	IMO Subcommittee on Standards of Training and Watchkeeping	6
D.	IMO Legal Committee	8
E.	IMO International Conference on Safety of Fishing Vessels	10
F.	NATO Maritime Environmental Protection	10
G.	IMO Subcommittee on Flag State Implementation	12
H.	IMO Facilitation Committee	14
2.	**LEGISLATION AND EXECUTIVE ORDERS**	16
A.	National Research Council Amendments (E.O. 12832)	16
B.	Ozone-Depleting Substances (E.O. 12843)	17
3.	**REGULATIONS**	19
A.	Emergency Position Indicating Radio Beacons (CG)	19
B.	Conformity of General Federal Actions to Implementation Plans (EPA)	19
C.	Phaseout of Chemicals Which Deplete Stratospheric Ozone (EPA)	20
D.	Occupational Exposure to Glycol Ethers (OSHA)	20
E.	Longitudinal Strength and Plating Thickness (CG)	21
F.	Subdivision and Damage Stability (CG)	22
G.	Class II Civil Penalties (CG)	22
H.	Ballast Water Management (CG)	23
I.	Water Quality Guidance for the Great Lakes System (EPA)	24
J.	Lead Exposure in Construction (OSHA)	25
K.	Tanker Navigation Underway (CG)	25
L.	Substitutes for Chemicals Which Deplete Stratospheric Ozone (EPA)	26
M.	Refrigerant Recycling (EPA)	26
N.	Emissions from New Nonroad Compression-Ignition Engines (EPA)	27
O.	Recordkeeping of Refuse Discharges from Ships (CG)	28
P.	Personal Flotation Device Components (CG)	29
Q.	Immersion Suits for Commercial Fishing Industry Vessels (CG)	29

R. Safeguarding Food from Contamination (RSPA) 30
S. Bulk Hazardous Materials and Noxious Liquid Substances (CG) 30
T. Particulate Matter (EPA) 31

D. **SPECIAL PROJECTS AND REPORTS** 32

A. Internal Combustion Engine Exhaust Emissions (Navy) 32
B. Free-Fall Lifeboats on U.S. Vessels (MARAD) 33
C. Cruise Ship Safety (GAO) 34

APPENDIX

International Maritime Organization (IMO)
Piracy and Other Crimes

SUMMARY

This quarterly report is the 28th in a series concerning safety and environmental protection matters related to ports and shipping. Some highlights covered herein are the following:

1. The 68th session of the Legal Committee (LEG 68) of the International Maritime Organization (IMO) was held at IMO Headquarters in London from March 15-19, 1993. Among LEG 68 agenda items were the consideration of a draft International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS) and the legal issues regarding mandatory ship reporting systems and vessel traffic services. (Item 1-D)

2. The IMO International Conference on Safety of Fishing Vessels (SFV-P/CONF) was held at Torremolinos, Spain, from March 22 - April 2, 1993. The Conference adopted the Protocol of 1993 relating to the 1977 Torremolinos International Convention for the Safety of Fishing Vessels (SFV PROT 1993). (Item 1-E)

3. The 22nd session of the IMO Facilitation Committee (FAL 22) was held at IMO Headquarters in London from April 26-30, 1993. Among its actions, the Committee approved several priority amendments to the Annex to the Convention on Facilitation of International Maritime Traffic (FAL Convention) and considered facilitation aspects of methods to prevent and control illicit drug traffic. (Item 1-H)

4. On April 8, 1993, the Coast Guard, U.S. Department of Transportation, promulgated regulations to require ballast water management practices for each vessel entering the Great Lakes after operating on waters beyond the Exclusive Economic Zone. These requirements (33 CFR part 151) will help to prevent the additional introduction of nonindigenous aquatic nuisance species through the ballast water of vessels entering the Great Lakes. (Item 3-H)

5. The Naval Sea Systems Command, U.S. Department of the Navy, has published a report dated December 31, 1992, and entitled "Internal Combustion (Gas Turbine and Diesel) Engine Exhaust Emission Study." This report surveys current rules and regulations, summarizes current techniques/technology to meet these regulations, discusses the origins of diesel and gas turbine pollutants and the techniques for reducing and measuring emissions, presents a parametric study of diesel and gas turbine engines, and recommends a program for the Navy to follow. (Item 4-A)

For further information, please contact the following individuals at the Maritime Administration, U.S. Department of Transportation, Washington, DC 20590:

Mr. Daniel W. Leubecker phone: (202) 366-1939
Maritime Safety and Environmental Specialist
Office of Technology Assessment

Mr. Paul B. Mentz phone: (202) 366-1925
Director
Office of Technology Assessment

Mr. John M. Pisani phone: (202) 366-4357
Director
Office of Port and Intermodal Development

1. INTERNATIONAL ACTIVITIES

A. International Maritime Organization (IMO), Subcommittee on Lifesaving, Search and Rescue (LSR)

The 24th session of the Subcommittee on Lifesaving, Search and Rescue (LSR 24) was held at IMO Headquarters in London from February 15-19, 1993. The session was chaired by Mr. Robert L. Markle of the United States, who was reelected for 1994. Forty-two member governments, 1 associate member, 1 United Nations specialized agency, 2 intergovernmental organizations, and 11 nongovernmental organizations participated. The United States was represented by the Coast Guard with assistance from three private sector advisers.

Among LSR 24 agenda items were the following: (1) amendments to chapter III (Lifesaving Appliances and Arrangements) of the 1974 International Convention for the Safety of Life at Sea (SOLAS 1974) regarding new ships; (2) revision of the recommendation on testing of lifesaving appliances; (3) free-fall lifeboats, including requirements for acceleration protection in lifeboats; (4) matters concerning search and rescue (SAR), including those related to the 1979 SAR Conference and the introduction of the Global Maritime Distress and Safety System (GMDSS); (5) safety instructions to passengers; (6) safety awareness and emergency training; (7) revision of chapter 8 of the Code of Safety for High Speed Craft (HSC Code); (8) inflatable liferafts; (9) international approval standards; (10) role of the human element in maritime casualties; and (11) review of existing ships' safety standards.

Major accomplishments achieved by LSR 24 are as follows: (1) development of a draft Maritime Safety Committee (MSC) circular on the evaluation of free-fall lifeboats; (2) engaging the Subcommittee in a frank discussion of international approval and enforcement of SOLAS requirements; (3) development of amendments to SOLAS chapter III; (4) development of amendments to the IMO recommendation on the testing of lifesaving appliances; (5) development of consensus on coding and registration of emergency position indicating radio beacons (EPIRBs) and 121.5 MHz locating signals for SAR; (6) development of a draft IMO recommendation on emergency instructions to passengers; (7) development of a revised Assembly resolution on approval of liferaft servicing stations; and (8) completion of the lifesaving system requirements for the IMO HSC Code (formerly the Code of Safety for Dynamically Supported Craft).

For further information, contact Mr. Robert L. Markle, Chief, Survival Systems Branch (G-MVI-3), Office of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-1444).

B. International Maritime Organization (IMO), Subcommittee on Ship Design and Equipment (DE)

The 36th session of the Subcommittee on Ship Design and Equipment (DE 36) was held at IMO Headquarters in London from February 22-26, 1993. Thirty-three member governments, 2 associate members, 1 United Nations specialized agency, and 12 observers from nongovernmental organizations participated. The United States was represented by the Coast Guard with assistance from two private sector advisers.

DE 36 agenda items included the following: (1) extension of the Code on Alarms and Indicators to cover other IMO instruments; (2) maneuverability of ships and maneuvering standards; (3) revision of the Code of Safety for High Speed Craft (HSC Code); (4) helicopter facilities offshore; (5) ventilation of vehicle decks during loading, unloading, and during the voyage; (6) guidelines on standard calculation methods for anchor positioning systems for mobile offshore drilling units (MODUs); (7) guidelines for dynamic positioning systems for MODUs and ships engaged in similar operations; (8) introduction of the harmonized system of surveys and certification (HSSC) into the MODU Code; (9) use of ozone-depleting substances other than halons on board ships; (10) structural integrity of tankers and bulk carriers; (11) feasibility study on voyage data recorders; (12) coating requirements for ballast tanks; (13) fuel line failures; (14) reduction of secondary sources of pollution by minimizing the source of general flooding and by improving control of equipment vital to safe operation of the vessel; (15) revision of towing requirements; (16) requirements for ships intended for operation in polar waters; (17) guidelines for standardization of the layout of essential instrumentation on the bridge and in the engine room; (18) safety of passenger submersibles; (19) introduction of a standard for ship construction into the 1974 International Convention for the Safety of Life at Sea (SOLAS 1974); (20) review of existing ships' safety standards; (21) role of the human element in maritime casualties; (22) safety aspects of alternative tanker designs; (23) structural aspects of the use of composite materials on board ships; (24) access to tanks and ballast space structures; and (25) standards for the design and construction of sewage systems on ships.

Among the significant actions taken at DE 36 are the following:

1. The Subcommittee approved amendments to the Code on Alarms and Indicators to cover the 1989 Code for the Construction and Equipment of Mobile Offshore Drilling Units (MODU Code) and the Code of Safety for Diving Systems.

2. The DE agreed to draft interim maneuverability standards which are to be forwarded to the Maritime Safety Committee (MSC) as a recommended Assembly resolution.

3. Concerning the HSC Code, the Subcommittee agreed to pursue the option of establishing a new chapter under SOLAS which will provide basic regulations that refer to the HSC Code. SOLAS 1974 will serve as the benchmark for the level of safety to be achieved.

4. With regard to ventilation of vehicle decks, the DE agreed to form an intersessional correspondence group and directed the group to address specific vehicle deck ventilation system issues as identified by the United States.

5. The Subcommittee agreed to develop a final text of draft amendments to the 1989 MODU Code in order to harmonize the survey and certification requirements and the safety certificates with the requirements of the 1988 SOLAS and Load Line Protocols. It was agreed to prepare a draft MSC resolution for adopting the amendments.

6. The DE agreed with the information provided by the United States on alternatives for ozone-depleting CFC-11 and CFC-12 as well as on retrofitting existing refrigeration units to use alternative refrigerants and on availability of equipment for recycling, recovering, and reclaiming CFC-11 and CFC-12.

7. The Subcommittee agreed that voyage data recorders are technically feasible. It was felt that hull strength monitoring devices would be useful as an aid to the master in vessel operation and would provide information for naval architects in the design process. The Subcommittee agreed, in principle, on a recommendation to fit hull strength monitoring devices on board bulk carriers of 20,000 DWT and above and also agreed to consider extending the application of the recommendation to other types of ships.

8. The Subcommittee approved the draft text of amendments to SOLAS 1974 concerning coating requirements for ballast tanks and invited the MSC to approve and adopt the amendments as soon as possible. The DE agreed to form an intersessional correspondence group to prepare guidelines on the selection, application, and maintenance of protective coatings of dedicated seawater ballast tanks.

9. The DE agreed that the towing requirements should be changed so that towing equipment would be pre-rigged and capable of being rapidly deployed from both the bow and the stern of tankers above 20,000 DWT. The Subcommittee approved the draft text of amendments to chapter V of SOLAS 1974 and recommended that the MSC treat this as an urgent matter.

For further information, contact Capt. T. E. Thompson, Chief, Marine Technical and Hazardous Materials Division (G-MTH), Office of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-2967).

C. International Maritime Organization (IMO), Subcommittee on Standards of Training and Watchkeeping (STW)

The 24th session of the Subcommittee on Standards of Training and Watchkeeping (STW 24) was held at IMO Headquarters in London from March 8-12, 1993. A total of 58 member governments, 2 associate members, 2 United Nations specialized agencies, 3 intergovernmental organizations, and 14 nongovernmental organizations participated. The United States was represented by the Coast Guard with assistance from the Maritime Administration, Federal Communications Commission, and three private sector advisers. Major STW 24 agenda topics were as follows: (1) comprehensive review of the 1978 International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW 1978); (2) draft Protocol to STCW 1978 relating to fishing vessels; (3) officer of the watch acting as sole lookout in periods of darkness; (4) special training for personnel on tankers; (5) international eyesight standards; (6) drug use and alcohol abuse; (7) training for personnel to assist passengers in emergencies; (8) training for repair and maintenance of on-board electrical installations; (9) training for personnel on mobile offshore units (MOUs); and (10) issue of certificates to holders of non-Global Maritime Distress and Safety System (non-GMDSS) certificates.

Significant actions taken at STW 24 include the following:

1. The Subcommittee prepared a provisional list of items to be considered in the comprehensive review of STCW 1978 which is broad in scope and includes manning implications. The STW also agreed on a number of principles to guide the review. The principles call for retaining the integrity of the existing Convention, reviewing the existing control system, and introducing a "functional approach" to certification which relates skills to shipboard functions without reference to traditional shipboard organization. A working group was established for the comprehensive review of the STCW Convention.

2. The Subcommittee agreed to U.S. proposals and proposals received from the Subcommittee on Radiocommunications (COM) concerning the draft preliminary outline of subjects to be addressed in the evaluation of results of trials with one man bridge watches at night. The modifications emphasize the importance of considering the human factors implications of one man watches and

the ability of one person to perform all duties related to GMDSS.

3. Concerning special training requirements for personnel on tankers, the STW approved a proposed revision to the draft amendments to chapter V of STCW 1978. The revision provides for a specified period of on-board training and requires training in procedures to be followed when a malfunction occurs which poses a risk of pollution. The draft amendments with revisions will be forwarded to the 63rd session of the Maritime Safety Committee (MSC 63) for consideration and adoption.

4. The Subcommittee adopted a draft MSC circular establishing international in-service eyesight standards based on the principles and guidelines proposed by the U.S. delegation at STW 23. The standards are consistent with U.S. eyesight fitness standards and preserve flag-state discretion to grant waivers for any of the standards, with a limitation imposed on the degree of permissible loss of distant visual acuity. The draft MSC circular will be submitted to MSC 62 for consideration and adoption.

5. The STW approved a working group recommendation, as proposed by the U.S. delegation, for the adoption of an IMO Assembly resolution incorporating the principles and guidelines concerning drug and alcohol abuse programs in MSC circular 595, taking note of the International Labor Organization's endorsement of the IMO principles and guidelines. Member governments were also encouraged to prescribe a maximum blood-alcohol concentration of 0.08 percent as a minimum acceptable safety standard. MSC 62 was invited to instruct the STW to prepare the Assembly resolution for future consideration and adoption.

6. The Subcommittee adopted a final draft Assembly resolution on minimum training requirements for personnel assigned to assist passengers in emergency situations on passenger ships. The draft resolution includes the U.S. delegation proposal on periodic retraining and enhanced communication skills for crew members assigned to assist passengers in emergencies. The draft resolution will be submitted to MSC 62 for consideration and adoption.

7. The Subcommittee prepared a draft Assembly resolution on radio licenses in the GMDSS. The primary purpose of the resolution is to denounce the practice of issuing GMDSS certificates to holders of non-GMDSS certificates without requiring additional training.

For further information, contact Capt. John F. McGowan, Chief, Merchant Vessel Personnel Division (G-MVP), Office of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-0214).

D. International Maritime Organization (IMO), Legal Committee (LEG)

The 68th session of the Legal Committee (LEG 68) was held at IMO Headquarters in London from March 15-19, 1993. A total of 43 nations, 3 intergovernmental organizations, 20 nongovernmental organizations, Hong Kong, and the United Nations Environment Programme (UNEP) were represented. The United States was represented by the Coast Guard with assistance from the Department of State, Department of the Navy, Customs Service, and two private sector advisers. Among LEG 68 agenda items were the following: (1) consideration of a draft International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS); (2) legal issues regarding mandatory ship reporting systems and vessel traffic services; (3) technical cooperation -- subprogram for maritime legislation; (4) work program for the 1994-1995 biennium and long-term work plan; and (5) matters arising from the 69th session of the Council (C 69).

Significant actions taken at LEG 68 include the following:

1. In its consideration of the draft HNS Convention, the LEG made very little progress with regard to the second-tier international fund scheme. This was due, in part, to the varied submissions calling for the establishment of separate sector accounts within the proposed second-tier. While the idea of multiple accounts was initially raised at LEG 67, the submissions made at LEG 68 were the first concrete and detailed formal proposals seen. Because of the late distribution of these proposals, most delegations did not have specific positions regarding them. There was, however, a willingness to refer the submissions to the Legal Committee's working group of experts (WGE) with only minimum discussion.

2. The Committee attempted a final reading of the first 10 articles of the HNS Convention, but the discussion was characterized by many reservations and comments. The chairman reiterated a view that many issues in the first 10 articles need further discussion, but mentioned that some were best left to the diplomatic conference. Some discussion focused on a submission proposing a discrete list to define HNS substances. The LEG decided to again refer the issue to the WGE to allow the experts to comment on the technical issues

raised by the specific submission. The U.S. submission proposing the deletion of liability for all International Maritime Dangerous Goods (IMDG) Code Class 7 radioactive substances was relatively well received; however, the LEG did not make a decision on the matter. The chairman asked that interested delegations work towards a compromise solution to be presented at LEG 69.

3. The Committee decided to recommend to the Council (C) that the scheduled HNS diplomatic conference be removed from the 1994-1995 work program and moved work on revisions to the 1976 Convention on Limitation of Liability for Maritime Claims (LLMC 1976) to equal priority with HNS on the work program. The Committee decided to allow the WGE to continue priority work on HNS.

4. In considering the mandatory ship reporting issue, the LEG referred without amendment the summary of conclusions from the informal working group to the Maritime Safety Committee (MSC). There were some attempts to amend the document, but the chairman and other delegations persuaded the Committee to allow the summary to go forward without amendment and to allow delegations to make comments for the LEG report, which would be forwarded along with the summary.

5. The LEG also: (a) expressed a willingness to implement the subprogram for maritime legislation in the Integrated Technical Cooperation Program which was adopted by the Technical Cooperation Committee (TC); (b) adopted a work program for the 1994-1995 biennium and a long-term work plan for the period beyond, including in the short-term consideration of a draft convention on offshore mobile craft, work on the subject of arrest of ships, work on a possible convention on wreck removal and related issues, and work on a draft convention on civil jurisdiction, choice of law, recognition and enforcement of judgments in matters of collision at sea; and (c) recommended to the Council (C) the granting of consultative status to the International Maritime Lecturers Association (IMLA) and the World Wide Fund for Nature (WWF).

While work on HNS seemed to plateau, there was a hint on the margin of an upcoming attempt to refocus HNS on a single second-tier account, funded through post-incident levies only on high volume bulk liquid and gas cargoes. For further information, contact Capt. David J. Kantor or Lt. Lee Handford, Maritime and International Law Division (G-LMI), Office of the Chief Counsel, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-1527).

E. International Maritime Organization (IMO), International Conference on Safety of Fishing Vessels (SFV-P/CONF)

The IMO International Conference on Safety of Fishing Vessels (SFV-P/CONF) was held at Torremolinos, Spain, from March 22 - April 2, 1993. The Conference adopted the Protocol of 1993 relating to the 1977 Torremolinos International Convention for the Safety of Fishing Vessels (SFV PROT 1993). The Protocol is intended to make the Convention acceptable to more nations, thereby enabling it to be ratified by a sufficient number of states to bring it into force. The Conference was attended by 48 states, 1 observer state, 1 associate member, 2 United Nations specialized agencies, 2 intergovernmental organizations, and 1 nongovernmental organization. The United States was represented by the Coast Guard with assistance from one private sector adviser. The final act of the Conference acknowledged that 10 governments, including the United States, provided the necessary funds for the Conference.

Protocol technical requirements for the construction and equipment of fishing vessels address the following broad areas: (1) construction, watertight integrity, and equipment; (2) stability and associated seaworthiness; (3) machinery and electrical installations and periodically unattended machinery spaces; (4) fire protection, fire detection, fire extinction, and fire fighting; (5) protection of the crew; (6) lifesaving appliances and arrangements; (7) emergency procedures, musters, and drills; and (8) radiocommunications. The Protocol will be open for signature from July 1, 1993, to June 30, 1994, at IMO Headquarters in London. It will come into force once it is ratified by a minimum of 15 states whose fishing fleets comprise at least 14,000 vessels in the aggregate.

The United States has not ratified the 1977 Torremolinos International Convention for the Safety of Fishing Vessels (SFV 1977). If the United States is to become a party to the 1993 Protocol, the U.S. Coast Guard needs, as a first step, legislative authority from the U.S. Congress to inspect fishing vessels. In 1992, the Coast Guard submitted a report to Congress recommending that the Coast Guard inspect fishing vessels. For further information, contact Mr. Gene F. Hammel, Assistant Director, International Affairs Staff (G-CI), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-2280).

F. North Atlantic Treaty Organization (NATO), Maritime Environmental Protection (MEP)

The NATO Special Working Group 12 on Maritime Environmental Protection (SWG 12/MEP) met on April 7-8, 1993, at NATO Headquarters in Brussels, Belgium. The SWG 12 meeting was preceded by a 2-day meeting of the ad hoc working group on ship engine exhaust emissions. Representatives from Belgium, Canada,

Denmark, France, Germany, Italy, the Netherlands, Norway, Portugal, the United Kingdom, and the United States participated. SWG 12/MEP was formed by the NATO Naval Armaments Group in order to address the challenge that NATO navies must be environmental leaders while effectively executing the alliance defense mission. The focus of SWG 12 is on technology sharing and cooperation which has resulted in several cooperative efforts.

Among significant actions taken at this SWG 12 meeting are the following:

1. SWG 12 continues to aggressively share information and seek opportunities for MEP cooperation. This NATO forum is rapidly becoming a focal point for international MEP discussions. Many representatives are contributing information developed within their bilateral arrangements with other (including non-NATO) nations.

2. Blue water navy representatives expressed the requirement for worldwide naval operations with minimal regulatory constraints, without inappropriate dependence on shore facilities, and without unreasonable costs imposed by future environmental regulations.

3. Representatives have validated the vision of an environmentally sound ship of the 21st century (ESS-21) which was first articulated by the U.S. Navy in 1989.

4. The U.S. representative presented an overview of the strategic planning process for environmental research and development. The presentation also included the recent effort for integration of the science and technology strategic planning process with the overall thrust of the environmental program.

5. The Netherlands representative presented his nation's national strategy called "Total Material Management" which seeks to examine every current and future operation or development with regard to its impact on the environment.

6. Representatives harmonized their strategies and requirements to achieve MEP. Common strategies for waste streams will lead to the identification of the technological needs and areas for possible collaboration in research and development.

7. Representatives agreed that international regulation of ship diesel engine exhaust emissions was likely in the next few years. Without exception, the experts attending the meeting of the ad hoc working group on ship engine exhaust emissions endorsed the position

that new engine exhaust emissions restrictions, if any, should only apply to new engines after the year 2000 and should not apply to existing engines.

8. Representatives agreed that there was no drop-in replacement for Halon 1301 that would meet shipboard fire fighting, safety, and health requirements. The representatives all agreed that finding a suitable replacement was one of their highest priorities.

SWG 12 will hold its next meeting on October 13-14, 1993, in Brussels, Belgium. For further information, contact Mr. Lawrence J. Koss, Head, Ship and Air Systems Branch, Environmental Protection, Safety and Occupational Health Division (N45), U.S. Department of the Navy, Washington, DC 20350, (phone: (703) 602-2562).

G. International Maritime Organization (IMO), Subcommittee on Flag State Implementation (FSI)

The first session of the Subcommittee on Flag State Implementation (FSI 1) was held at IMO Headquarters in London from April 19-23, 1993. Forty-six member governments, 1 associate member, 1 United Nations specialized agency, 3 intergovernmental organizations, and 15 nongovernmental organizations participated. The United States was represented by the Coast Guard with assistance from the American Bureau of Shipping. FSI 1 agenda items included the following: (1) responsibilities of governments under safety and pollution prevention conventions; (2) essential services required for the implementation of IMO instruments; (3) general guidelines for flag states; (4) difficulties experienced by flag states in implementing IMO instruments; (5) difficulties experienced by states other than flag states in implementing IMO instruments; (6) specific needs, as provided by individual flag states or identified by the Subcommittee; (7) deficiency reports; (8) casualty statistics and investigations; (9) changes to IMO working methods and instruments to reduce the difficulties associated with implementation of IMO instruments; (10) application of exemptions and equivalent provisions contained in IMO instruments; (11) technical assistance; and (12) guidance on matters relating to port state control.

Major accomplishments of FSI 1 include the following:

1. During this first session of the FSI, a significant amount of plenary time was spent in the development of the purpose and direction of the group. After extensive discussion, it was clearly established, in line with U.S. objectives, that the Subcommittee would develop, implement, and provide guidance on IMO instruments leading to the reduction of substandard ships.

2. The Subcommittee approved guidelines to assist flag states in the discharge of their duties under IMO conventions. The guidelines will be issued as a Maritime Safety Committee (MSC) circular. This will allow maritime administrations the opportunity to provide information concerning the usefulness of the guidelines. After an evaluation period, the guidelines will be issued as an MSC resolution.

3. The FSI completed a draft resolution on guidelines for the authorization of and minimum standards for recognized organizations acting on behalf of administrations. This document is the compilation of documents created in two separate working groups formed during this session.

4. The Subcommittee established a permanent working group on casualty statistics and investigations. The FSI views the analysis of casualty and deficiency data as being of paramount importance to the evaluation of flag state and port state effectiveness. The establishment of a permanent working group is an integral part of the overall effort to improve flag state compliance.

5. A draft circular was completed that establishes an IMO data base and outlines a format which will enable the IMO to capture and analyze information from investigations completed by administrations in accordance with Assembly resolution A.322(IX).

6. The Subcommittee developed detailed guidelines on the control of operational requirements related to the safety of ships and pollution prevention. These guidelines are to be approved at MSC 62 and forwarded to the 18th Assembly as a resolution.

7. The Subcommittee established a correspondence group on the amalgamation of numerous existing port state control resolutions. This single port state resolution will comprise the first comprehensive IMO document on port state control. It will take into consideration all existing port state control documents and will ensure that port state control matters become an integral part of the FSI Subcommittee.

For further information, contact Capt. Robert C. North, Deputy Chief, Office of Marine Safety, Security and Environmental Protection (G-M), U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-2201).

H. International Maritime Organization (IMO), Facilitation Committee (FAL)

The 22nd session of the Facilitation Committee (FAL 22) was held at IMO Headquarters in London from April 26-30, 1993. The United States was represented by the Department of Transportation with assistance from the Immigration and Naturalization Service. FAL 22 agenda items included, among others, the following: (1) Convention on Facilitation of International Maritime Traffic (FAL Convention); (2) consideration and adoption of proposed amendments to the Annex to the FAL Convention; (3) automatic data processing of shipping documents and documents used for the clearance of ships; (4) general review of the FAL Convention, e.g., facilitation aspects of methods to prevent and control illicit drug traffic; (5) formalities connected with the arrival, stay, and departure of persons; and (6) policy on ports.

Among significant actions at FAL 22 are the following:

1. The Committee approved several priority amendments to the FAL Annex, including two dealing with unmanifested parcels and the listing of stowaways. The United States actively participated in a special working group established to review and prioritize additional amendments, primarily concerning the handling of stowaways and inadmissible passengers, for consideration at future sessions.

2. The Committee noted the first report of the working group on strategy for port interface. Several delegations expressed a strong interest in having the work of this group incorporated into the FAL Committee. It was agreed that no decision would be taken until after the Maritime Safety Committee (MSC) and the Marine Environment Protection Committee (MEPC) meet later in 1993.

3. Concerning facilitation aspects of methods to prevent and control illicit drug traffic, the observer from the Customs Cooperation Council (CCC) advised the Committee that the CCC had entered into memorandums of understanding (MOUs) with eight international maritime organizations, including the International Chamber of Shipping (ICS). These MOUs provide a framework for cooperation between customs authorities and shipping companies to reduce or eliminate the use of vessels in contraband trafficking. The CCC observer noted that they had concluded the report undertaken for the Group of Seven (G-7) nations and submitted it to the Munich Economic Summit in July 1992. The G-7 Summit endorsed the report and the expansion of MOUs between customs authorities and the transport sector at both the national and international levels. The CCC observer also strongly supported the proposed amendments to the

FAL Convention that had been submitted by the ICS at FAL 21 indicating that they are consistent with the finding of the G-7 study. (See also the Appendix herein.)

4. The Committee requested the ICS to take the lead in translating the six FAL paper document forms (general declaration, cargo declaration, ship's stores declaration, crew's effects declaration, crew list, and passenger list) into electronic messages. The United States again urged the IMO not to develop electronic data interchange (EDI) messages outside the UN EDIFACT process.

5. The United States, along with the observers from the International Civil Aviation Organization (ICAO) and the CCC, informed the Committee as to the facilitation value of advance passenger information systems (APIS) in clearing international maritime passengers. The Committee supported the use of APIS, particularly where travel documents were machine readable.

For further information, contact Mr. Clifford W. Woodward, Office of International Transportation and Trade (P-20), U.S. Department of Transportation, 400 Seventh Street, SW, Washington, DC 20590, (phone: (202) 366-9505).

2. LEGISLATION AND EXECUTIVE ORDERS

A. National Research Council Amendments (E.O. 12832)

On January 19, 1993, President Bush signed Executive Order 12832 which amended Executive Order 2859, as amended, in order to update the National Research Council (NRC). The NRC was organized in 1916 at the request of the President by the National Academy of Sciences, under its Congressional charter, as a measure of national preparedness. It is the principal operating agency of the National Academy of Sciences and the National Academy of Engineering, the latter having been established in 1964 under the charter of the National Academy of Sciences. The Institute of Medicine of the National Academy of Sciences, established in 1970 under the Academy's charter, conducts its programs and activities under the approval, operating, and review procedures of the NRC. In recognition of the work accomplished through the NRC in organizing research, in furthering science, and in securing cooperation of government and nongovernment agencies in the solution of their problems, the NRC has been perpetuated by the Academy of Sciences as requested by the President in Executive Order 2859.

With regard to the functions of the NRC, the amendments are:

1. "To stimulate research in the mathematical, physical, biological, environmental, and social sciences, and in the application of these sciences to engineering, agriculture, medicine, and other useful arts, with the object of increasing knowledge, of strengthening the national security including the contribution of science and engineering to economic growth, of ensuring the health of the American people, of aiding in the attainment of environmental goals, and of contributing in other ways to the public welfare.

2. "To survey the broad possibilities of science, to formulate comprehensive projects of research, and to develop effective means of utilizing the scientific and technical resources of the country for dealing with such projects.

3. "To promote cooperation in research, at home and abroad, in order to secure concentration of effort, minimize duplication, and stimulate progress; but in all cooperative undertakings to give encouragement to individual initiative, as fundamentally important to the advancement of science.

4. "To serve as a means of bringing American and foreign investigators into active cooperation with the scientific and technical services of the Federal Government.

5. "To direct the attention of scientific and technical investigators to the importance of military and industrial problems in connection with national security, to the importance of environmental problems in connection with public health and the economy, and to aid in the solution of these problems by organizing specific research.

6. "To gather and collate scientific and technical information, at home and abroad, in cooperation with governmental and other agencies, and to disseminate such information to duly accredited persons and the public."

Federal scientists, engineers, and other technically qualified professionals are encouraged by these amendments to participate in the work of the NRC as requested and authorized. Also, because of the unique qualifications of the National Academy of Sciences, the amendments authorize the acquisition of services by the Academy on a noncompetitive basis if otherwise in accordance with applicable law and regulations.

For further information, contact Dr. Frank Press, President, National Academy of Sciences, 2101 Constitution Avenue, Washington, DC 20418.

B. Ozone-Depleting Substances (E.O. 12843)

On April 21, 1993, President Clinton signed Executive Order 12843 entitled "Procurement Requirements and Policies for Federal Agencies for Ozone-Depleting Substances." E.O. 12843 states that: (1) the essential function of the stratospheric ozone layer is shielding the Earth from dangerous ultraviolet radiation; (2) the production and consumption of substances that cause the depletion of stratospheric ozone are being rapidly phased out on a worldwide basis with the support and encouragement of the United States; (3) the Montreal Protocol on Substances that Deplete the Ozone Layer, to which the United States is a signatory, calls for a phaseout of the production and consumption of these substances; (4) the federal government, as one of the principal users of these substances, is able through affirmative procurement practices to reduce significantly the use of these substances and to provide leadership in their phaseout; and (5) the use of alternative substances and new technologies to replace these ozone-depleting substances may contribute positively to the economic competitiveness on the world market of U.S. manufacturers of these innovative safe alternatives.

In order to reduce the federal government's procurement and use of substances that cause stratospheric ozone depletion, this Order requires federal agencies, to the extent practicable, to: (1) conform their procurement regulations and practices to the policies and requirements of Title VI of the Clean Air Act

Amendments of 1990 (P.L. 101-549) which deal with stratospheric ozone protection; (2) maximize the use of safe alternatives to ozone-depleting substances; (3) evaluate the present and future uses of ozone-depleting substances, including making assessments of existing and future needs for such materials and evaluating their use of and plans for recycling; (4) revise their procurement practices and implement cost-effective programs both to modify specifications and contracts that require the use of ozone-depleting substances and to substitute non-ozone-depleting substances to the extent economically practicable; and (5) exercise leadership, develop exemplary practices, and disseminate information on successful efforts in phasing out ozone-depleting substances.

The term "procurement regulations, policies, and procedures" encompasses the complete acquisition process, including the generation of product descriptions by individuals responsible for determining which substances must be acquired by the agency to meet its mission. For further information, contact Mr. Paul Stolpman, Acting Director, Office of Atmospheric Programs, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, (phone: (202) 233-9140).

3. REGULATIONS

A. Emergency Position Indicating Radio Beacons (CG)

The EPIRB's On Uninspected Vessels Requirements Act (P.L. 100-540) amended the shipping laws of the United States by requiring uninspected commercial vessels to have the number and type of alerting and locating equipment, including emergency position indicating radio beacons (EPIRBs), prescribed by regulation. On March 10, 1993, (58 FR 13364), the Coast Guard (CG), U.S. Department of Transportation, promulgated a final rule (46 CFR part 25) which amends the uninspected vessel regulations by requiring EPIRBs to be carried on all uninspected commercial vessels, except uninspected passenger vessels, operating on the high seas or beyond 3 miles from the coastline of the Great Lakes. By implementing this law, the regulations will improve Coast Guard search and rescue (SAR) activities during emergency situations. An EPIRB is Type Accepted by the U.S. Federal Communications Commission under requirements in 47 CFR parts 2 and 80.

For further information, contact Mr. Robert L. Markle, Chief, Survival Systems Branch (G-MVI-3), Office of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-1444).

B. Conformity of General Federal Actions to Implementation Plans (EPA)

The Clean Air Act (CAA) requires the U.S. Environmental Protection Agency (EPA) to promulgate rules to ensure that federal actions conform to the appropriate state implementation plan (SIP). Conformity to a SIP is defined in the CAA, as amended in 1990, as meaning conformity to a SIP's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards (NAAQS) and achieving expeditious attainment of such standards. The federal agency responsible for the action is required to determine if its actions conform to the applicable SIP. On March 15, 1993, (58 FR 13836), EPA proposed rules (40 CFR parts 51 and 93) governing the determination of conformity.

The EPA Administrator, with the concurrence of the Secretary of Transportation, is required to promulgate criteria and procedures for demonstrating and assuring conformity to the SIP of federal highway and transit actions (transportation conformity). These proposed transportation conformity rules are set forth in 40 CFR part 51, subpart T, as proposed on January 11, 1993, (58 FR 3768), and in 40 CFR part 93, subpart A, as proposed in this notice of proposed rulemaking. The CAA also requires EPA to promulgate criteria and procedures for determining conformity of all other federal actions to a SIP (general conformity). These

proposed general conformity rules are set forth in 40 CFR part 51, subpart W, and 40 CFR part 93, subpart B, as proposed in this notice of proposed rulemaking. As used in this proposed rulemaking, a "federal action" subject to the proposed general conformity rules means any activity engaged in by a department, agency, or instrumentality of the federal government or any activity that a department, agency, or instrumentality of the federal government supports in any way, provides financial assistance for, licenses, permits, or approves.

For further information, contact Mr. Doug Grano, Office of Air Quality Planning and Standards (MD-15), U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, (phone: (919) 541-3292).

C. Phaseout of Chemicals Which Deplete Stratospheric Ozone (EPA)

On March 18, 1993, (58 FR 15014), the U.S. Environmental Protection Agency (EPA) issued a notice of proposed rulemaking (40 CFR part 82) which proposes to amend the schedule for the phaseout of chemicals which deplete stratospheric ozone, as provided for under section 606 of the amended Clean Air Act (CAA). This action responds to several petitions and comments seeking an accelerated phaseout of ozone-depleting substances under section 606. It also proposes regulations implementing the amendments, adjustments, and decisions adopted by the parties to the Montreal Protocol on Substances That Deplete the Ozone Layer at their November 1992 meeting. In this action, EPA is proposing to list and phase out methyl bromide and hydrobromofluorocarbons (HBFCs). Finally, in accordance with trade provisions in article 4 of the Montreal Protocol, EPA proposes with this action to ban specified trade between the United States and foreign states not party to the Protocol.

For further information, contact Mr. Peter Voigt, Stratospheric Protection Division, Office of Atmospheric Programs, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, (phone: (202) 233-9185).

D. Occupational Exposure to Glycol Ethers (OSHA)

On March 23, 1993, (58 FR 15526), the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor, issued a proposed rule to amend its existing regulation (29 CFR part 1910) for occupational exposure to 2-Methoxyethanol (2-ME), 2-Ethoxyethanol (2-EE), and their acetates (2-MEA, 2-EEA) (Glycol Ethers). OSHA has determined, based on a review and evaluation of studies conducted on the health effects of these glycol ethers, that the current permissible exposure limits (PELs) do not adequately protect employees from significant risks of

adverse health effects, specifically reproductive and developmental health effects.

To eliminate these significant risks of adverse health effects, OSHA is proposing for general, maritime, agriculture, and construction industries to reduce the existing 8-hour time weighted average (TWA) PELs for 2-ME and 2-MEA to 0.1 parts per million (ppm) and for 2-EE and 2-EEA to 0.5 ppm. OSHA proposes excursion limits (ELs) for these glycol ethers of five times the proposed PELs. OSHA also proposes to set action levels (ALs) for these glycol ethers of one-half the proposed PELs, measured as an 8-hour TWA, in order to encourage lower exposure for employees while reducing administrative burdens on employers. In addition, OSHA proposes that no employee shall be exposed to these glycol ethers through dermal contact. Also proposed are requirements concerning certain ancillary provisions for employee protection such as preferred methods to control exposure, employee exposure monitoring, medical surveillance, recordkeeping, regulated areas, emergency procedures, hazard communication, and personal protective equipment.

For further information, contact Mr. James F. Foster, Office of Public Affairs, Occupational Safety and Health Administration, U.S. Department of Labor, 200 Constitution Avenue, NW, Washington, DC 20210, (phone: (202) 219-8151).

E. Longitudinal Strength and Plating Thickness (CG)

Section 4109 of the Oil Pollution Act of 1990 (P.L. 101-380, OPA 90) requires the issuance of regulations on two matters related to structural integrity of vessels that carry oil in bulk as cargo or cargo residue. These new regulations will: (1) establish minimum standards for plating thickness and (2) require periodic gauging of the plating thickness of all tank vessels over 30 years old operating on the navigable waters of the United States or the waters of the Exclusive Economic Zone. The purpose of these regulations is to ensure adequate structural integrity of tank vessels throughout their service life. This will reduce the likelihood of a vessel breaking apart and spilling a substantial quantity of its cargo oil. The statute also requires the regulations to be consistent with generally recognized principles of international law.

On March 23, 1993, (58 FR 15740), the Coast Guard (CG), U.S. Department of Transportation, proposed to establish minimum longitudinal strength and plate thickness standards (46 CFR parts 31 and 32) for tank vessels that carry oil cargoes. These proposed regulations also would require the periodic gauging of these vessels after they reach the age of 30 years. These regulations would reduce the likelihood of oil spills from structural failure of tank vessels, particularly in the case of unclassed tank barges.

For further information, contact Mr. Thomas Jordan, Project Manager, Oil Pollution Act Staff (G-MS-1), Office of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-6751).

F. Subdivision and Damage Stability (CG)

On April 1, 1993, (58 FR 17316), the Coast Guard (CG), U.S. Department of Transportation, issued a final rule (46 CFR part 174) which requires new dry cargo ships of 500 gross tons or more, calculated in accordance with the 1969 International Convention on Tonnage Measurement of Ships (TONNAGE 1969), to meet a minimum standard of subdivision and damage stability. Subdivision is the partitioning of a ship's internal volume into watertight compartments. Its purpose is to limit the quantity of water which may enter the ship following accidental hull damage or internal piping failure. Damage stability is the ability of a ship to avoid capsizing following accidental flooding. These regulations implement an international standard that was developed to ensure that a ship can sustain limited damage without loss of that ship. The current International Maritime Organization (IMO) damage stability rules for dry cargo ships were adopted in May 1990. These rules became effective as of February 1, 1992, as an amendment to the 1974 International Convention for the Safety of Life at Sea (SOLAS 1974).

For further information, contact Lt. Robert Holzman, Naval Architecture Branch (G-MTH-3), Office of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-2988).

G. Class II Civil Penalties (CG)

On April 6, 1993, (58 FR 17926), the Coast Guard (CG), U.S. Department of Transportation, issued an interim final rule (33 CFR part 20) which addresses practice and procedure for cases assessing class II civil penalties under section 311(b) of the Federal Water Pollution Control Act (FWPCA), as amended by the Oil Pollution Act of 1990 (P.L. 101-380, OPA 90), and section 109 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). These regulations make available the enhanced enforcement capabilities provided by the OPA 90 amendments to the FWPCA. All class II penalties will be assessed following notice and opportunity to be heard in proceedings that meet the requirements of the Administrative Procedures Act (APA). With regard to the FWPCA, this rule provides for public notice of a class II civil penalty action and an opportunity for interested persons to comment on the proposed civil penalty, to present evidence at a hearing, and to seek a hearing if none is scheduled. Topics addressed include administrative law judges, pleadings and motions, proceedings, conferences and settlement,

discovery, hearings, evidence, decisions and orders, appeals, and finality and availability of orders.

For further information, contact Ms. Pamela M. Pelcovits, OPA 90 Staff (G-MS-1), Office of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-6823).

H. Ballast Water Management (CG)

On April 8, 1993, (58 FR 18330), the Coast Guard (CG), U.S. Department of Transportation, promulgated regulations (33 CFR part 151) to require ballast water management practices for each vessel entering the Great Lakes after operating on waters beyond the Exclusive Economic Zone (EEZ). These requirements, which replace voluntary guidelines published on March 15, 1991, will help to prevent the additional introduction of nonindigenous aquatic nuisance species through the ballast water of vessels entering the Great Lakes. This final rule implements the regulatory requirements of the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (P.L. 101-646). Historical records suggest that over 100 non-native species have been introduced into the Great Lakes. The introduction of non-native fish and other aquatic organisms through the discharge of ballast water alters the balance of the ecosystem, often to the detriment of the system. Scientists believe that, in the 1980s alone, ballast water discharges have introduced six nuisance species to the Great Lakes.

The regulations require the employment by the master of the vessel of one of the following ballast water management practices:

1. Carry out an exchange of ballast water on the waters beyond the EEZ, in a depth exceeding 2,000 meters, prior to entry into Snell Lock, at Massena, New York, such that, at the conclusion of the exchange, any tank from which ballast water will be discharged into the Great Lakes contains water with a minimum salinity level of 30 parts per thousand.

2. Retain the vessel's ballast water on board the vessel. If this method of ballast water management is employed, the Captain of the Port may seal any tank or hold containing ballast water on board the vessel for the duration of the voyage within the waters of the Great Lakes.

3. Use an alternative environmentally sound method of ballast water management that has been submitted to, and approved by, the Coast Guard prior to the vessel's voyage.

In addition, no master of a vessel subject to these regulations may separately discharge sediment from tanks or holds containing ballast water unless it is disposed of ashore in accordance with local requirements. Nothing in these regulations authorizes the discharge of oil or noxious liquid substances in a manner prohibited by U.S. or international laws or regulations.

For further information, contact Lt. Jonathan C. Burton, Project Manager, Marine Environmental Protection Division (G-MEP), Office of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-6714).

I. Water Quality Guidance for the Great Lakes System (EPA)

On April 16, 1993, (58 FR 20802), the U.S. Environmental Protection Agency (EPA) promulgated a proposed rule (40 CFR parts 122, 123, 131, and 132) concerning the proposed Water Quality Guidance for the Great Lakes System developed under section 118(c)(2) of the Clean Water Act (CWA), as amended by section 101 of the Great Lakes Critical Programs Act of 1990. This Guidance, once finalized, will establish minimum water quality standards, antidegradation policies, and implementation procedures for waters within the Great Lakes System in the states of New York, Pennsylvania, Ohio, Indiana, Illinois, Minnesota, Wisconsin, and Michigan, including the waters within the jurisdiction of indian tribes. This proposal also is intended to satisfy the requirements of section 118(c)(7)(C) of the CWA that EPA publish information concerning the public health and environmental consequences of contaminants in Great Lakes sediment and that the information include specific numerical limits to protect health, aquatic life, and wildlife from the bioaccumulation of toxins.

The proposed Guidance specifies numeric criteria for selected pollutants to protect aquatic life, wildlife, and human health within the Great Lakes System and methodologies to derive numeric criteria for additional pollutants discharged to these waters. The proposed Guidance also contains specific implementation procedures to translate the proposed ambient water quality criteria into enforceable controls on discharges of pollutants, as well as a proposed antidegradation policy for the Great Lakes System. The Great Lakes states and tribes must adopt water quality standards, antidegradation policies, and implementation procedures for waters within the Great Lakes System which are consistent with the final Guidance. If a Great Lakes state or tribe fails to adopt consistent provisions, EPA will promulgate such provisions.

For further information, contact Ms. Wendy Schumacher, Water Quality Branch (WQS-16J), Region V, U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, IL 60604, (phone: (312) 886-0412).

J. Lead Exposure in Construction (OSHA)

On May 4, 1993, (58 FR 26590), the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor, promulgated an interim final rule which amends the standards for occupational health and environmental controls in 29 CFR part 1926 by adding a new section containing employee protection requirements for construction workers exposed to lead. This interim final rule is mandated by and issued under the exclusive authority of sections 1031 and 1032 of Title X of the Housing and Community Development Act of 1992 (P.L. 102-550).

This standard reduces the permitted level of exposure to lead for construction workers from 200 micrograms per cubic meter as an 8-hour time weighted average (TWA) to an 8-hour TWA of 50 micrograms per cubic meter. The standard also includes requirements addressing exposure assessment, methods of compliance, respiratory protection, protective clothing and equipment, hygiene facilities and practices, medical surveillance, medical removal protection, employee information and training, signs, recordkeeping, and observation of monitoring. An action level of 30 micrograms per cubic meter as an 8-hour TWA is established as the level at which employers must initiate certain compliance activities. In instances where employers can demonstrate that employee exposures are below 30 micrograms per cubic meter as an 8-hour TWA, the employer is not obligated to comply with most of the requirements in this interim final rule.

For further information, contact Mr. James F. Foster, Office of Public Affairs, Occupational Safety and Health Administration, U.S. Department of Labor, 200 Constitution Avenue, NW, Washington, DC 20210, (phone: (202) 219-8151).

K. Tanker Navigation Underway (CG)

On May 10, 1993, (58 FR 27628), the Coast Guard (CG), U.S. Department of Transportation, consolidated three proposed rules into one final rule (33 CFR part 164 and 46 CFR part 35) which requires tankers of 1,600 or more gross tons (GT) when operating on the navigable waters of the United States to navigate with two officers on the bridge and an adequate engineering watch, including a licensed engineer in the machinery spaces. Restrictions are also imposed on the use of an automatic pilot by these tankers. These actions are required by the Oil Pollution Act of 1990 (P.L. 101-380, OPA 90). This final rule will provide additional tanker navigation safety requirements to reduce the incidence of tanker casualties.

For further information, contact Ms. Margie Hegy, Short Range Aids to Navigation Division (G-NSR), Office of Navigation Safety and Waterway Services, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-0415).

L. Substitutes for Chemicals Which Deplete Stratospheric Ozone (EPA)

On May 12, 1993, (58 FR 28094), the U.S. Environmental Protection Agency (EPA) proposed its program for evaluating and regulating substitutes for the ozone-depleting chemicals being phased out under the stratospheric ozone protection provisions of the Clean Air Act (CAA). In section 612 of the amended CAA, EPA is authorized to identify and restrict the use of substitutes for Class I and Class II ozone-depleting substances where other alternatives exist that reduce overall risk to human health and the environment. EPA is referring to the program that would provide these determinations as the Significant New Alternatives Policy (SNAP) program. The intended effect of this action is to expedite movement away from ozone-depleting compounds.

In this notice of proposed rulemaking (40 CFR part 82), EPA is both issuing preliminary decisions on the acceptability of certain substitutes and introducing its plan for administering the SNAP program. To arrive at determinations on the acceptability of substitutes, EPA completed a cross-media analysis of risks to human health and the environment from use of various substitutes in different industrial applications. This analysis covers substitutes in the following applications: refrigeration, foam blowing, solvent cleaning, fire extinguishing, sterilants, aerosols, tobacco expansion, and adhesives, coatings, and inks. These sectors comprise the principal industrial sectors that historically consume large volumes of ozone-depleting compounds.

For further information, contact Ms. Drusilla Hufford, Stratospheric Protection Division, Office of Atmospheric Programs, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, (phone: (202) 233-9101).

M. Refrigerant Recycling (EPA)

On May 14, 1993, (58 FR 28660), the U.S. Environmental Protection Agency (EPA) promulgated regulations (40 CFR part 82) under section 608 of the Clean Air Act (CAA) that establish a recycling program for refrigerants which deplete stratospheric ozone and are recovered during the servicing and disposal of air-conditioning or refrigeration equipment. Together with the prohibition on venting during servicing, repair, and disposal of Class I and Class II substances that took effect on July 1, 1992, these regulations should substantially reduce emissions of ozone-depleting refrigerants. This final rule applies to the servicing and disposal of most air-conditioning and refrigeration equipment, including household air conditioners and refrigerators, commercial air conditioners and chillers, commercial refrigeration, industrial process refrigeration, refrigerated transport, and air-conditioning in vehicles not covered by EPA's regulations under section 609 of the CAA (which

apply to the service of motor vehicle air conditioners). The transport refrigeration sector consists of refrigerated ship holds, truck trailers, railway freight cars, and other shipping containers.

These regulations require persons servicing air-conditioning and refrigeration equipment to observe certain service practices that reduce refrigerant emissions and establish equipment and off-site reclaimer certification programs, as well as a technician certification program. A sales restriction on refrigerant is included, whereby only certified technicians will legally be authorized to purchase such refrigerant. EPA's regulations also require repair of significant leaks, based on annual leak rates of equipment. In addition, these regulations require that ozone-depleting compounds contained "in bulk" in appliances be removed prior to disposal of the appliances and that all air-conditioning and refrigeration equipment, except for small appliances, be provided with a servicing aperture that would facilitate recovery of the refrigerant.

For further information, contact Ms. Debbie Ottinger, Stratospheric Protection Division, Office of Atmospheric Programs, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, (phone: (202) 233-9200).

N. Emissions from New Nonroad Compression-Ignition Engines (EPA)

Section 213 of the Clean Air Act (CAA), as amended by the Clean Air Act Amendments of 1990, requires the U.S. Environmental Protection Agency (EPA) to conduct a study to determine whether emissions of carbon monoxide (CO), oxides of nitrogen (NOx), and volatile organic compounds (VOCs) from nonroad engines and vehicles contribute significantly to levels of ambient ozone and CO in more than one area not in compliance with the national ambient air quality standards (NAAQS) for these pollutants. On May 17, 1993, (58 FR 28809), EPA issued a notice of proposed rulemaking (NPRM) which proposes to find that emissions from such nonroad sources significantly contribute to nonattainment of the NAAQS for ozone and CO in more than one area. If EPA finalizes this positive determination, section 213 requires the Agency to promulgate regulations that will result in reductions in emissions from nonroad sources.

Consequently, EPA is proposing in this NPRM standards (40 CFR part 89) for NOx and smoke emissions from nonroad compression-ignition (CI) engines greater than or equal to 50 horsepower (37.3 kilowatts), with exclusions for certain types of engines. Engines explicitly excluded from this rulemaking are the following large nonroad CI engines: (1) engines regulated by the Mine Safety and Health Administration for underground use, (2) engines used in aircraft, (3) engines used to propel locomotives, and (4) engines used in marine vessels.

EPA is not including engines that propel or are used only on marine vessels for several reasons. First, these engines are currently subject to safety regulations by the Coast Guard. EPA must analyze these current Coast Guard safety requirements and determine the best method for regulating emissions from these engines consistent with the Coast Guard regulations. Second, at the present time insufficient information is available as to whether the proposed nonroad engine 8-mode test procedure is sufficiently representative of the operating cycle of these engines or whether some other cycle would be more appropriate. Finally, the application of auxiliary engines on marine vessels allows the use of unique technological solutions not available to other engines covered in this NPRM. Consequently, if EPA decides to regulate these engines, it will be through a separate rulemaking. This exclusion includes auxiliary engines used only on marine vessels.

For further information, contact Mr. Michael A. Sabourin, Certification Division, Office of Mobile Sources, National Vehicle and Fuel Emissions Laboratory, 2565 Plymouth Road, Ann Arbor, MI 48105, (phone: (313) 668-4595).

O. Recordkeeping of Refuse Discharges from Ships (CG)

The Marine Plastic Pollution Research and Control Act of 1987 (P.L. 100-220) implemented Annex V (Garbage) of the 1973 International Convention for the Prevention of Pollution from Ships, as modified by the Protocol of 1978, (MARPOL 73/78). Section 2107 of this Act requires that the Secretary of the Department in which the Coast Guard (CG) is operating prescribe regulations which: (1) require certain U.S. ships (defined to include fixed or floating platforms, as well as vessels) to maintain refuse record books and (2) specify the ships to which the regulations apply. Refuse record books would be used to document waste discharges from the ships.

On May 20, 1993, (58 FR 29482), the Coast Guard, U.S. Department of Transportation, issued a notice of proposed rulemaking (33 CFR part 151) which would require that all manned, oceangoing U.S. vessels of 40 feet or more in length engaged in commerce and all manned fixed or floating platforms subject to the jurisdiction of the United States keep records of garbage discharges and disposals. Regulations specifying the vessels and platforms required to maintain these records are mandated by statute. The use of shipboard garbage discharge and disposal records would promote compliance, facilitate enforcement, and reduce the amount of plastics discharged into the marine environment. In addition to this rulemaking, the Coast Guard is pursuing adoption of an international requirement for refuse recordkeeping through the International Maritime Organization (IMO).

For further information, contact Ltjg. Claudia C. Gelzer, Project Manager, Marine Environmental Protection Division (G-MEP), Office

of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-6714).

P. Personal Flotation Device Components (CG)

On May 20, 1993, (58 FR 29488), the Coast Guard (CG), U.S. Department of Transportation, issued a final rule (46 CFR parts 159, 160, and 164) which establishes procedures for obtaining Coast Guard acceptance of non-standard components, requirements for oversight of non-standard components, self-certification requirements for standard components, and production quality control requirements for all components used in the manufacture of Coast Guard-approved personal flotation devices (PFDs). This final rule also prohibits the use of cotton thread as a PFD component, designates specified nylon and polyester threads as standard components, and adds new performance requirements for non-standard thread. The regulations in this final rule relating to standard PFD components and to certain non-standard PFD components, for the most part, represent a codification of longstanding procedures and requirements that are currently applied to those components.

For further information, contact Ensign Jerry Johnson, Survival Systems Branch (G-MVI-3), Office of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-1444).

Q. Immersion Suits for Commercial Fishing Industry Vessels (CG)

On May 20, 1993, (58 FR 29502), the Coast Guard (CG), U.S. Department of Transportation, promulgated a notice of proposed rulemaking (46 CFR part 28) to require the carriage of immersion suits for each individual on board undocumented commercial fishing industry vessels operating on coastal waters which are only seasonally cold and on board documented commercial fishing industry vessels operating inside the Boundary Line on coastal waters which are only seasonally cold. This regulation is intended to improve the overall safety of commercial fishing industry vessels. "Coastal waters that are only seasonally cold" means the U.S. waters of the Great Lakes, except for Lake Superior; the coastal waters on the entire east coast of the United States; and the coastal waters on the west coast of the United States, south of Point Reyes, California, and the waters of Drakes Bay which is north of Point Reyes, California.

For further information, contact LCdr. Tim Skuby, Offshore Activities Branch (G-MVI-4), Office of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-2307).

R. Safeguarding Food from Contamination (RSPA)

On May 21, 1993, (58 FR 29698), the Research and Special Programs Administration (RSPA), U.S. Department of Transportation, proposed regulations (49 CFR parts 106, 107, 108, 110, 121, 171, 173, 178, and 180) which address the safe transportation of food products in highway and rail transportation. This action is required by the Sanitary Food Transportation Act of 1990 (SFTA). The intended effect of this rulemaking is to increase the level of safety associated with the transportation of food products. This proposal would restrict a cargo tank, tank car, or portable tank to the carriage of either food products or nonfood products. RSPA has not identified any nonfood products that are acceptable to be carried in a tank vehicle that carries food products and, therefore, is not proposing an "acceptable nonfood product list." For other motor and rail vehicles, the proposal would forbid the transportation of food products in the same vehicle with poisons, infectious substances, hazardous wastes, or solid wastes (i.e., "unacceptable nonfood products"). However, such vehicles would be allowed to carry unacceptable nonfood products before or after the carriage of food products provided that the vehicle is free of any contaminating residues.

The proposal would require any motor vehicle or rail vehicle that has transported unpackaged friable asbestos to be dedicated to the transportation of asbestos and refuse. These food safety regulations would not apply to: (1) the transportation of products in farm vehicles, considered implements of husbandry, operated by a private carrier exclusively for agricultural purposes; (2) the offering or accepting for transportation of cardboard, pallets, beverage containers, and other food packaging materials; or (3) the transportation of food products which are packaged in two fully enclosed packagings.

For further information, contact Mr. John A. Gale, Office of Hazardous Materials Standards (DHM-10), Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW, Washington, DC 20590, (phone: (202) 366-8553).

S. Bulk Hazardous Materials and Noxious Liquid Substances (CG)

On May 24, 1993, (58 FR 29890 and 29940), the Coast Guard (CG), U.S. Department of Transportation, promulgated two proposed rulemakings to amend its regulations on the carriage of bulk hazardous materials (46 CFR parts 30, 40, 98, 147, 150, 151, and 153) and its noxious liquid substances (NLSs) regulations (33 CFR part 151). The bulk hazardous materials regulations would be amended by adding cargoes recently authorized for carriage by the Coast Guard or added to the International Maritime Organization's (IMO's) Bulk Chemical Codes and by making minor technical and editorial changes and corrections. This action would update the bulk hazardous materials tables and better inform persons

shipping a bulk hazardous material of that material's compatibility and special handling requirements. The NLS regulations would also be amended to include substances recently authorized for carriage by the Coast Guard or added to the IMO's Bulk Chemical Codes and by making minor technical and editorial changes and corrections. This action would update the current lists of oil-like and non-oil-like NLSs allowed for carriage.

For further information, contact Mr. Curtis G. Payne, Hazardous Materials Branch (G-MTH-1), Office of Marine Safety, Security and Environmental Protection, U.S. Coast Guard, 2100 Second Street, SW, Washington, DC 20593, (phone: (202) 267-1577).

T. Particulate Matter (EPA)

On June 3, 1993, (58 FR 31622), the U.S. Environmental Protection Agency (EPA) issued a final rule (40 CFR parts 51 and 52) which revises the maximum allowable increases (increments) for particulate matter (PM) under the requirements of the Clean Air Act (CAA) for prevention of significant deterioration (PSD) of air quality. The revised increments, based on particles with an aerodynamic diameter of less than or equal to a nominal 10 micrometers (PM-10), replace the original increments for PM, which were based on total suspended particulate (TSP). As a result, the PSD increments and the national ambient air quality standards (NAAQS) for PM will be measured by the same indicator for PM, namely PM-10.

The PSD program is required to balance three goals. The first of these goals is to protect public health and welfare from actual or potential endangerment. This goal includes the protection of existing air quality in all areas where the ambient pollutant concentrations required by the NAAQS are currently being achieved. The second goal emphasizes the protection of air quality in national parks, wilderness areas, and similar areas of special concern where air quality is considered particularly important. The third goal is to assure that economic growth in clean air areas occurs only after careful deliberation of the impacts of growth on air quality by the state and local communities and only when such growth would be consistent with the preservation of clean air resources.

For further information, contact Mr. Dan deRoeck, Air Quality Management Division (MD-15), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, (phone: (919) 541-5593).

4. SPECIAL PROJECTS AND REPORTS

A. Internal Combustion Engine Exhaust Emissions (Navy)

The Naval Sea Systems Command (NAVSEA), U.S. Department of the Navy, has published a report (Technical Instruction 1X3-373) dated December 31, 1992, and entitled "Internal Combustion (Gas Turbine and Diesel) Engine Exhaust Emission Study." The U.S. Environmental Protection Agency (EPA) and state regulatory bodies, like the California Air Resources Board (CARB), as well as the International Maritime Organization (IMO), are beginning to examine marine exhaust emissions. The U.S. Navy, therefore, contracted for the preparation of this comprehensive study of marine exhaust emissions with the goal of developing a strategy for meeting stringent controls. This report surveys current rules and regulations, summarizes current techniques/technology for meeting these regulations, discusses the origins of diesel and gas turbine pollutants and the techniques for reducing and for measuring emissions, presents a parametric study of diesel and gas turbine engines, and recommends a program for the Navy to follow for in-use and new engines in anticipation of more stringent rules over the next few years. Included is a program plan and an exhaust emissions database of fleet engines.

Among the major findings and recommendations of this study are the following:

1. The Navy currently is exempt from complying with any emission requirements except nuisance smoke. Various local, state, national, and international regulatory bodies, however, are considering placing exhaust emission limits on marine vessels. It is unclear whether the Navy will have to comply with any of the proposed requirements. The two initial exhaust constituents of primary concern and the targets of proposed legislation are sulfur oxides (SOx) and nitrogen oxides (NOx).

2. There are currently no emission test requirements or procedures for marine gas turbine and diesel engines. There is some activity to develop standards for measurement and emission tests, but none would address Navy operating modes or cycles.

3. As legislation is developed to limit marine exhaust emissions, recommendations for techniques to meet the requirements will also have to evolve. One of the most important aspects of meeting any requirements is developing an exhaust emission inventory that details the type of engines in use and level of emissions. For Navy gas turbine and diesel engines, some manufacturer and previous Navy test exhaust emission data are already available.

4. To meet future emission requirements, the current gas turbine or diesel engine designs or operation of the engines will have to be changed or exhaust after-treatment will have to be added. Most of these design solutions, however, will impact some other parameters such as increasing fuel consumption, increasing the generation of other exhaust constituents, or creating operational restrictions on engine power levels. In order to backfit most of these solutions, the Navy may have to balance operational readiness with environmental readiness.

5. As a result of the findings of this report and the direction of NAVSEA, a gas turbine and diesel engine emission reduction program strategy was developed. The objective of the emission reduction program is to eliminate or reduce shipboard gas turbine and diesel engine exhaust emissions to a level acceptable to the various state and local regulatory agencies. Additionally, a program plan consisting of three phases was developed. Implementation of this program plan should enable the Navy to identify the exhaust emissions and compare them with any current proposed requirements, to develop strategies for reducing exhaust emissions for current engines that fail to meet regulated levels, and to include emission requirements and emission testing for future gas turbine and diesel engine acquisition.

For further information, contact Mr. Michael Osborne, Naval Sea Systems Command (NAVSEA 05X31), U.S. Department of the Navy, 2341 Jefferson Davis Highway, Arlington, VA 22242, (phone: (703) 602-3615).

B. Free-Fall Lifeboats on U.S. Vessels (MARAD)

The Maritime Administration (MARAD), U.S. Department of Transportation, has issued a report (MA-RD-840-92000) dated January 28, 1993, and entitled "Applicability of Free-Fall Lifeboats on United States Vessels." This report provides an overview of free-fall lifeboat systems. Acquisition and life-cycle costs, design and installation issues, and training and safety implications are discussed. Free-fall lifeboat systems are compared and contrasted with conventional davit launched lifeboat systems. The report serves as a starting point for shipowners, fleet operators, and naval architects that are considering the use of free-fall lifeboats. It also provides useful information for classification societies and regulatory authorities. A number of recommendations are made to facilitate the application of free-fall lifeboat systems on U.S.-flag vessels.

According to this report, free-fall lifeboats are the latest innovation in survival craft and have become very popular during the last decade. Free-fall lifeboats have been successfully launched from heights as great as 40 meters. The world demand for free-fall lifeboats, especially in Europe, has increased steadily during the past 15 years. Advantages of free-fall lifeboats, when compared with conventional lifeboats, include: (1) faster and more efficient evacuation, (2) a single stern-mounted lifeboat can be used instead of port and starboard lifeboats, (3) secondary launching means are available, (4) always stowed in the ready-to-launch position, (5) the boat is propelled clear of the vessel during the launch, (6) fewer tasks are required to launch the lifeboat, and (7) safer evacuation from vessels having a high freeboard.

For a typical 24-person shipboard installation, the estimated life-cycle cost for a 20-year period is approximately $482,000 for a free-fall installation and $534,600 for a conventional installation. Currently there are no certificated free-fall lifeboats within the United States, nor are there any training facilities. This situation can change very quickly if the U.S. maritime community, especially ship designers and owners, is informed about the advantages of free-fall lifeboats. When the demand exists, manufacturers are likely to pursue certification of free-fall lifeboats and to market them despite perceived product liability issues. It should be noted that some free-fall lifeboats produced by foreign manufacturers have nearly completed U.S. Coast Guard certification requirements.

For further information, contact Mr. Alexander C. Landsburg, Office of Technology Assessment (MAR-840), Maritime Administration, U.S. Department of Transportation, 400 Seventh Street, SW, Washington, DC 20590, (phone: (202) 366-1923).

C. Cruise Ship Safety (GAO)

The U.S. General Accounting Office (GAO) has published a report (GAO/RCED-93-103) dated March 1993 and entitled "Coast Guard: Additional Actions Needed to Improve Cruise Ship Safety." In 1990, a fire aboard the SCANDINAVIAN STAR off the coast of Norway killed 158 persons. This accident served as a catalyst to strengthen international standards for ship fire safety and design and also raised questions about the adequacy of other passenger safety standards. The accident investigation criticized the failure of international inspections to detect and correct safety deficiencies, the fire fighting response, and inadequate shipboard emergency information.

The report indicates that nearly all (137 out of 139) cruise ships operating in U.S. ports are registered (or "flagged") with foreign countries. International safety standards for such ships are set through the International Maritime Organization (IMO), an agency of the United Nations. A ship's flag nation is

responsible for certifying the ship's compliance with safety standards, although many nations delegate this task to classification societies, which perform safety inspections under contract. The country where the ship calls (the "port state") can conduct its own ship examinations to verify compliance with international standards and can detain a ship if it finds significant noncompliance. The Coast Guard, U.S. Department of Transportation, performs these examinations and enforces standards in U.S. ports.

The report's results are briefly as follows:

1. Through its safety examinations, the Coast Guard continues to find safety problems on cruise ships, including inoperable fire doors and improperly designed escape routes. Key reasons for these problems include inadequate inspections by flag nations or classification societies and differing interpretations of some key international safety standards. The IMO has begun efforts to identify needed reforms. However, the Coast Guard has not adequately assessed information, nor shared it with the IMO, on the extent of substandard safety oversight by flag nations and classification societies.

2. The Coast Guard's own examination program can be improved in two respects. First, the Coast Guard needs to more effectively collect and analyze its cruise ship examination results, because its current automated system does not routinely track repeated deficiencies or detect deficiency trends by individual companies, flag nations, or classification societies. Second, the Coast Guard needs to provide additional training on international safety standards for its inspectors; some inspectors told GAO that they lack sufficient knowledge to uniformly enforce these standards.

3. International standards contain limited training requirements for crew members responsible for fighting shipboard fires. Since 1979, the IMO has recommended, but not required, that fire squad members receive additional training in fighting shipboard fires. Few of the eight cruise ship companies GAO reviewed had implemented all of IMO's recommendations, and they varied greatly in the training they required.

4. International standards for emergency information aboard cruise ships are limited and unclear. Emergency information to facilitate safe passenger evacuation is often confusing and incomplete. The Coast Guard has considered taking a more comprehensive approach to improving emergency standards but has not obtained the consensus of Coast Guard groups working separately on U.S. positions on such standards.

GAO recommends that the Secretary of Transportation direct the Coast Guard to: (1) petition the IMO to amend international cruise ship safety standards to require strengthened safety oversight by flag nations and classification societies and improved fire fighting training and emergency escape information and (2) develop a better system for collecting and analyzing cruise ship safety examination results. For further information, contact Mr. Kenneth M. Mead, Director, Transportation Issues, U.S. General Accounting Office, Washington, DC 20548, (phone: (202) 512-2834).

APPENDIX

International Maritime Organization (IMO)

Piracy and Other Crimes

Source:

IMO News (Number 1: 1993)
International Maritime Organization
4 Albert Embankment
London SE1 7SR
United Kingdom

Piracy and other crimes

The International Maritime Organization is best known for its work in the fields of maritime safety and pollution prevention. But over the years it has been given many other responsibilities by its 136 Member Governments, including a significant role in the fight against crime at sea.

This article looks at some of these activities.

Piracy and armed robbery

Until recently it seemed that piracy was one crime that had been successfully beaten. In the popular mind it is associated with the far-off days of the 17th century when ships flying the skull and crossbones plundered their way around the Caribbean. But evidence from many parts of the world shows that piracy is far from being a thing of the past.

During the last ten years, IMO has received reports of more than 400 separate incidents of piracy, but the actual total is certainly much higher. The attacks have ranged from incidents in which the pirates have simply taken money and valuables from the crew and the ship's safe to cases where the entire cargo has been stolen (and in some cases the ship as well). Usually only the threat of violence is used but there have been injuries and sometimes crew members have been murdered.

Piracy was first brought to IMO's attention in 1983, when the MSC was asked by Sweden to consider a situation that was described as "alarming."

The Swedish note pinpointed the coast of West Africa as the main trouble spot. Ships that were at anchor offshore while waiting for a berth in port were being attacked, usually at night, by armed robbers travelling in fast motor launches.

The International Maritime Bureau (IMB), which was established by the International Chamber of Commerce (ICC) in 1979 initially to tackle the problem of maritime fraud (see below) said that attacks in the West Africa region could be dated back to about 1970. Other incidents had occurred in Southeast Asia, particularly in the Phillip Channel between Indonesia and Singapore. Some incidents had been reported in other regions, such as South America and the Caribbean.

After discussing the matter the MSC prepared a draft text which was then submitted to the 13th IMO Assembly in November 1983. It was adopted as Assembly resolution A.545(13).

The resolution notes with great concern the increasing number of incidents involving piracy and armed robbery and recognizes the grave danger to life and the grave navigational and environmental risks to which such incidents can give rise.

It then "urges Governments concerned to take, as a matter of highest priority, all measures necessary to prevent and suppress acts of piracy and armed robbery from ships in or adjacent to their waters, including strengthening of security measures."

The resolution "invites Governments concerned and interested organizations to advise shipowners, ship operators, ship masters and crews on measures to be taken to prevent acts of piracy and armed robbery and minimize the effects of such acts." It further invites Governments and organizations concerned to inform IMO of action taken to implement the aims of the resolution and recommends Governments concerned to inform IMO of any act of piracy or armed robbery committed against a ship flying the flag of their country, indicating the location and circumstances of the incident.

Finally, it requests the IMO Council to keep the matter under review and take such further action as it may consider necessary in the light of developments.

Although the number of incidents of piracy and armed robbery has declined in some areas, in others the problem has become more serious. In November 1991, therefore, the IMO Assembly adopted a second resolution on the subject (A.683(17)). It notes "with great concern the still increasing number of incidents involving piracy and armed robbery against ships and the increasing violence against personnel on board such ships."

The resolution then invites Governments to increase their efforts to suppress acts of piracy and armed robbery "as a matter of the highest priority". Neighbouring States are invited to coordinate their actions and Governments are urged to make available to ships transiting their waters information on incidents and the methods used by attackers. Governments are urged to encourage ships flying their flag to give prompt information to coastal authorities about any attacks and to take appropriate precautionary measures when entering waters where piracy is known to be a problem.

IMO is requested to send information about piracy to Member Governments and the industry and to examine the possibility of providing technical assistance support to Governments, for example by organizing seminars and workshops.

Since May 1991 IMO has been ana-

lysing all reports of piracy and armed robbery and summaries are presented to the MSC for consideration. While this has helped to identify the areas where the problem is greatest, the number of incidents is still alarming and in April 1992 the MSC noted that attacks were becoming more ferocious. Apart from the danger to the crew who are the victims of an attack, the navigational and environmental dangers can scarcely be exaggerated.

In some cases the crews of ships have been tied up and the ship left to steam ahead at full power with nobody in control while the robbers make their escape. A ship in such circumstances is a threat to everything that lies in its path and the possibility of a collision occurring is very real. If the ship happens to be a fully laden oil tanker then there is an equally strong possibility of a major pollution disaster. This danger is perhaps the greatest in the waters of South-east Asia, where the navigational channels are often very narrow and shallow and the traffic heavy (some 40,000 ships a year pass through the Malacca Straits).

At the MSC meeting Governments were invited to help organize seminars with the aim of adopting joint plans of action on a regional basis and were also asked to nominate authorities within their Administrations to handle reports received.

In August the Secretary-General, Mr William A. O'Neil, sent out a circular to IMO's 136 Member States proposing further action. In particular, Governments were asked to use the communications system established by the 1979 International Convention on Maritime Search and Rescue (SAR) to provide assistance to ships involved in attacks. This can be done by enabling masters whose ships are threatened to contact the nearest rescue co-ordination centre (RCC). This in turn can pass the information to the nearest anti-piracy authorities and where necessary can also alert neighbouring States to the danger.

The circular further recommends the use of the SafetyNet system established by the International Maritime Satellite Organization (INMARSAT) and other means of communications are provided under the global maritime distress and safety system (GMDSS), which came into effect in February 1992.

Despite these actions, piracy remains a serious threat and in November 1992 the Secretary-General told the IMO Council that he planned to establish a special working group to tackle the problem in South-east Asia. Mr O'Neil told the Council that the problem is now so great that drastic measures need to be taken if it is to be overcome.

Further details of the planned working group were given to the MSC when it met in December 1992. Mr O'Neil told the Committee that the working group would prepare a report outlining the problem in the Strait of Malacca,

Life at sea can often be hazardous. But in recent years attacks by pirates and armed robbers have provided an additional threat in some parts of the world

specify necessary navigational techniques and recommend appropriate safety precautions and enforcement arrangements. The group would consist of experts from countries with particular interest in the area, including the littoral States of Indonesia, Malaysia and Singapore.

The working group held its first meeting at IMO's London headquarters on Thursday, 14 January.

The group is expected to go to South-east Asia at the end of February and its report will be considered by the MSC in May. Although the group will concentrate on South-east Asia, and especially the Straits of Malacca, it is intended that its recommendations will be applicable globally and not restricted to one area.

The working group is expected to consist of experts in the prevention of unlawful acts (United Kingdom); search and rescue (United States); safety of navigation (Greece); radiocommunications (Norway); ships' routeing, navigational aids and vessel traffic services (Australia and Japan); and financial implications (Netherlands).

Representatives of the three littoral States (Indonesia, Malaysia and Singapore) will also participate and several non-governmental organizations in consultative status with IMO will join the working group. They include the IMB, the International Shipping Federation (ISF), the International Confederation of Free Trade Unions (ICFTU), the International Association of Lighthouse Authorities (IALA) and the International Federation of Shipmasters' Associations (IFSMA).

The meeting on 14 January enabled the group's terms of reference and related matters to be discussed. During the remainder of the month final terms of reference were prepared and discussions were held with the littoral States to decide the programme of visits.

During February the experts will be briefed on the purposes of the mission and final arrangements will be confirmed. The group is expected to leave for South-east Asia on 27 February and the mission itself is expected to last for about ten days. The reports of individual experts are expected to be submitted to the IMO Secretariat by the end of March and a final report will then be prepared for the Secretary-General. This will in turn be submitted to the MSC, IMO's senior technical body, which is holding its 62nd session from 24 to 28 May.

Piracy today

Although piracy has occurred in many parts of the world in recent years, the danger is greatest in three areas: South-east Asia, West Africa and the north-east coast of South America. Of these, the South-east Asia region is currently experiencing the most attacks.

The exact number is not known. Although IMO has asked for details of attacks on ships to be reported to the Secretariat, since 1991 only 11 administrations have sent in reports (most, in fact, have come from non-governmental organizations that have consultative status with IMO). This indicates that no other countries have been affected by piracy. But reports from other sources, such as the IMB, show that this is far from being the case.

Up to the summer of 1991, IMO had received reports of 256 acts of piracy and armed robbery going back to the early 1980s. Between 30 September and 31 December 1991 a further ten incidents were reported. There were 36 incidents reported between 1 January and 31 March and another 38 from 1 April to 30 June. Between 1 July and 30 September there were 27 attacks. By the end of 1992 the number of incidents reported to IMO had risen to more than 400.

It is likely that the actual number of incidents is much higher than reported even to national authorities. In some cases losses in cash terms are relatively slight and a report to the coastal authorities could result in an investigation being started that might require the ship to remain in port while the crew are interviewed. When it costs up to $25,000 a day to operate a ship the costs to the owner of one day of interviews could well be far higher than the value of the goods stolen.

The great majority of recent incidents have occurred in South-east Asia, with the Strait of Malacca being the most dangerous area of all. Attacks reached a peak in 1991, when 200 incidents were recorded. Although fewer incidents occurred in 1992, the danger still exists and in December two officers were murdered when their ship was attacked.

The type of attack appears to vary from area to area. In West Africa, for example, most of the incidents reported have involved ships at anchor, usually many miles off the coast, while waiting for a berth in port. In some parts of South America attacks have taken place within port areas. In South-east Asia, however, nearly all incidents have involved ships that are under way. The attack invariably takes place at night and the pirates usually board the ship at the stern, which is the nearest point to the bridge and crew accommodation yet offers the best chance of getting aboard undetected. As they are equipped with fast motor boats the pirates have no difficulty in overhauling ships which even at full sea speed are slower than the motor boats. Getting aboard is also made easier by the fact that many of the ships attacked are low in the water because they are fully laden (oil tankers are especially easy targets for this reason).

In most cases the attackers are looking for cash and valuables that are easily transportable, such as watches, cameras and similar items. The contents of the ship's safe, which is usually located in the captain's cabin, are normally taken as a matter of course. Within as little as 30 minutes the attack is over.

In other cases, the attacked ship is detained for a longer period, sometimes lasting for several days. This is so that the cargo, or the most valuable parts of it, can be unloaded into another ship. There have been a few isolated incidents in which the ship as well as the cargo has been seized permanently.

Long-term and permanent seizures usually indicate that the attack is carefully planned and involve a knowledge of the ship and its cargo.

Maritime fraud and barratry

In the late 1970s, a number of curious incidents at sea began to attract attention. Some shippers in various parts of the world complained that goods which they had ordered and paid for had failed to arrive. In other cases, over-insured ships disappeared without apparent cause. Although the circumstances varied from case to case, each one involved fraud, sometimes running into millions of dollars.

By 1979, according to the ICC, at least three incidents were occurring each month, with an average loss of $5 million. There was evidence that the problem was becoming more and more serious.

How it operates

According to the ICC, frauds can be put into four main categories. They are frauds committed:

- by a trader against another trader, shipowner, bank or insurer;
- by a shipowner or trader against insurers;
- by a charterer against a shipowner;
- by a charterer or shipowner against a trader.

In most cases, the victim of the fraud is offered what appears to be an excellent bargain – a ship at an extremely low rate, goods at rock-bottom prices and so on. The desire to take advantage of the "bargain" before it is too late makes him willing to ignore normal checks and precautions.

The ICC also found that the fraud cases it had investigated had a number of features in common:

- the majority of vessels involved were (a) over 15 years old, (b) on a single-voyage charter, (c) owned by single-vessel owners (although in some cases common management was established);
- many of the vessels involved changed ownership just before the incident or shortly afterwards. This often involved a change of name, sometimes several times;
- there has been a geographic pattern.

The ICC gave an example of a typical fraud in which "various of the parties could have made checks at one point or another but they did not. Everyone showed too much trust."

The fraud worked like this: a buyer in country A wanted to buy 15,000 tonnes of steel round reinforcing bars. He approached a seller in country B who could not himself supply in time and so contracted a seller in country C; the seller in C agreed to supply.

A letter of credit for over $5 million was opened by the buyer in A in favour of the seller in C. Payment was to be made against production of various documents, including the bill of lading.

The seller in C was supplying from a company in a fourth country (D). The seller presented all the necessary documents to the confirming bank in C and received payment. Four months later the buyer in A had not received the steel and made enquiries with the original company in B.

The company in B found that the vessel on which the steel was supposed to have been shipped was actually in D at the right time but did not load the steel in question. The shipowner and charterer were not involved in the fraud. The company in D knew nothing about the affair and never had any dealings with the seller in C.

The documents were all forged and the seller in C was untraceable. The buyer in A had thus been defrauded of over $5 million.

Other frauds have other victims. Sometimes a charter party is involved. A shipper makes arrangements for his goods to be shipped by another agent who duly charters a ship by making a down payment and arranging to pay the rest in instalments. As soon as the money from the shipper is received the agent disappears. The shipowner is then left with a shipload of goods which he is legally obliged to deliver even though he has only received part of the agreed payment. There is a temptation simply to sell the goods elsewhere, for as high a price as possible, thereby committing yet another fraud.

A common fraud, in the 1970s, involved the use of a "rust bucket" – an antiquated ship, usually in such poor condition that it was fit only for scrap. It was often purchased especially for the purpose of the fraud.

The ship would be over-insured and wherever possible a cargo would be obtained freight paid. Instead of delivering the cargo, however, the captain (who was either in collusion with the shipowner or might actually be the shipowner) would take it to a different port, preferably one where conditions were such that it was unlikely that embarrassing questions would be asked, and sell it to a completely different party. The ship would then be taken out to sea and scuttled. This tragic loss would be reported to the unfortunate shipper. The fraudster, meanwhile, would collect the money for delivering the cargo to the original destination, the money for selling it, and the insurance money for the ship (and possibly the cargo as well). He would cover his tracks by hiring a crew from such a wide range of countries (and dispersing them as soon as possible) that it would be very difficult to obtain proof that the sinking was not in fact accidental.

The scale of this type of fraud was shown in a report published in 1979 by the Far East Regional Investigation Team (FERIT), a four-man unit set up by the London-based Salvage Association and other bodies to examine a number of suspected hull and cargo frauds.

The team looked into 60 recent ship losses which had occurred in the Far East over the previous 20 years and decided that 48 of these merited further investigations – 28 of them in the previous two years alone.

The FERIT team concluded that 16 of the 28 incidents involved a ship being deliberately scuttled or otherwise being involved in fraud. Of the incidents which had occurred more than two years before, at least 11 were highly suspicious. In many cases, the ships were

Note: "Barratry" has been defined to include any fraudulent act on the part of the master or crew of a ship committed to the prejudice of her owners or underwriters, such as deliberately casting her away, deserting her, selling her or even diverting her away from her proper course with evil intent.

small and old and were carrying high-value cargoes; the ships usually sank in deep water, in good weather and with no loss of life.

The most spectacular fraud involving a scuttling came in 1980 when the 213,928 dwt tanker *Salem* sank off the coast of Senegal. It transpired that the ship, which had changed its name twice shortly before the sinking, had been chartered to carry cargo from the Persian Gulf to Europe. On the way, however, the ship called at a port in South Africa and discharged most of the 193,000 tons of oil she was carrying.

Fortunately, the *Salem* was spotted by another ship shortly before she sank and her crew were duly "rescued" before they could be dispersed. It was estimated that the cargo alone fetched $43 million while the insurance on the ship could have come to another $24 million.

IMO action

In November 1979 the IMO Assembly met for its 11th session. The delegate of Lebanon described the problem as it affected his country and asked IMO to develop counter-measures. His statement said: "Acts of criminal barratry and unlawful seizure of ships have occurred recently as a result of the concerted action of groups of shipowners, charterers, masters, agents, merchants and so forth from various countries who agree together to divert a ship and its cargo in order to hand over the latter to persons other than the lawful consignees. Such groups use various means in furtherance of their actions including the sale of the ship, changing its name, ownership and flag, or unloading it outside authorized ports, selling the ship together with its cargo, and so forth."

This appeal met with a prompt response. Several other delegates at the Assembly described problems which they had experienced and the Assembly requested the IMO Council to study the problem as a matter of highest priority and report back to the next session in November 1981.

The fact that the problem of maritime fraud had now been brought into the limelight in itself had a beneficial effect, by alerting Governments and potential victims to the danger. At the same time the ICC set up the International Maritime Bureau specifically to counter maritime fraud and similar crimes.

The IMO Council recommended a course of action which the Assembly adopted in a resolution entitled "Barratry, unlawful seizure of ships and their cargoes and other forms of maritime fraud" (A.504(XII)).

The resolution noted the "important and crucial role" which self-regulation by the relevant commercial and industrial interests must play in combating maritime fraud in all its forms.

It noted approvingly the action taken by the ICC "and in particular the positive and constructive initiative taken to set up the International Maritime Bureau." It urged all interests and organizations concerned to co-operate with the IMB and the ICC in taking effective measures and exchanging information for the further prevention of maritime fraud.

Governments were invited to "review the provisions in their national law relating to the prevention and suppression of all forms of maritime fraud and to make such additions or improvements as may be necessary for the prevention and suppression of such acts and the safeguarding of the interests of all parties concerned, having particular regard to:

(a) Administration of national registry, including the transfer of ownership or nationality or change of name of ships;
(b) Documentary requirements, bearing in mind that measures relating to documentation must not prejudice the facilitation of international maritime traffic and trade; and
(c) Appropriate legal penalties for acts of maritime fraud."

Governments were also invited to examine their national law-enforcement procedures and resources, including the availability of appropriately trained personnel, and to co-operate with each other and other interests.

As the ICC has consultative status with IMO, it is possible for representatives of the Chamber (and the IMB) to attend IMO meetings, send reports and contribute in other ways to discussions and decisions relating to fraud at sea.

The action taken by IMO, the creation of the IMB and the general publicity given to maritime fraud all helped to check the practice – at least for a time.

But by 1985, according to the IMB, the total cost of maritime fraud could have reached a staggering $13 billion a year: the Bureau itself had investigated cases in 1984 which totalled nearly $300 million and yet it estimated that it handled only two per cent of the crimes which took place that year. Of the cases investigated, incidentally, well over one third of the total money involved was lost through insurance frauds, with documentary frauds a close second.

Most authorities agree that the chief responsibility for prevention rests with the buyer – who, by initiating the transaction, makes the whole fraud possible. More should be done to check that other parties involved are honest and any apparent "bargains" should be viewed with immediate suspicion.

In November 1987 the IMO Assembly adopted resolution A.600(15), which set up the IMO Ship Identification Number Scheme. The idea behind this is to make it impossible for a ship's original identity to be disguised by changing its name and issuing a set of false documents. Under the scheme, every ship is assigned a permanent identification which will stay the same no matter how may times the ship's name or flag is changed.

The number used is the same as that used by Lloyd's Register of Shipping when the ship is built or first appears in the register itself, prefixed by IMO.

While the scheme is relatively simple to implement, its effectiveness depends to a considerable extent on how widely it is implemented. By December 1992 it had been implemented by eight countries (Belgium, Canada, Germany, Panama, Saudi Arabia, St Vincent and the Grenadines, Sweden and Vanuatu). It is being implemented in seven others (the

Czech Republic, the Netherlands, the Slovak Republic, Spain, Switzerland, the United Kingdom and the United States), and is under consideration in 11 other countries.

The use of cargo oil as fuel

It would be impossible to use crude oil to power a motor car or an airliner. Fuel for such machines has to be carefully processed before it is usable. But crude oil can power the engines of merchant ships – including the tankers in which the crude oil is transported.

To do so is, of course, theft, and therefore illegal. And it is also extremely dangerous.

This is because most forms of crude oil have a very low flashpoint (the temperature at which the vapour produced by the liquid may be ignited). This is often lower than ambient temperatures and is one reason why IMO has introduced strict regulations regarding the carriage of oil on board ships.

There have been in the past several incidents in which ships have exploded during tank-cleaning, ballasting or other operations. The same could occur if crude oil were mixed with fuel in the bunker tanks or if fuel were to leak in the engine-room.

The International Convention for the Safety of Life at Sea (SOLAS), 1974, requires (in chapter II-2, regulation 15) that "no fuel with a flashpoint of less than 60 °C shall be used", although fuel with a flashpoint of not less than 43 °C may be used in emergency generators and other relaxations may be permitted on cargo ships under certain conditions. This regulation is intended to prevent an explosion taking place by banning the use of all fuels which are volatile enough to make an explosion possible.

But despite the dangers, the temptations for unscrupulous operators (who do not, after all, have to travel on board the ships concerned) to use cargo oil as fuel are considerable.

It is very difficult to measure exactly the amount of cargo carried on an oil tanker, because of the physical condition of oil during loading, while some oil is inevitably lost through evaporation during the course of the voyage. There is therefore normally a slight discrepancy between the amount of oil shown on the bill of lading and the amount of oil discharged at the receiving terminal. The difference normally allowed between ship and shore figures is 0.5% of the total oil loaded – but this can still be a considerable amount where a large cargo is concerned (about 1,000 tonnes on a 200,000 dwt ship).

If a small amount of cargo is transferred to the bunkers, it is possible that it will not be noticed.

The gains can be substantial. Fuel costs can represent as much as 60% of total running costs. According to a report by the IMB in 1985 one ship sailed some 21,119 miles between October 1980 and April 1981 and used 8,600 tonnes of fuel – an average of 2.5 miles per tonne. From May to November 1982 the same ship sailed 19,947 miles and bought only 1,210 tonnes of bunker fuel – an average of 16.5 miles per tonne. With fuel costing $180 a tonne, the ship saved nearly 7,000 tonnes of fuel – and nearly $1.25 million.

In 1982 the Liberian Bureau of Maritime Affairs carried out an investigation into a number of incidents in which ships had apparently been using cargo oil as a way of saving on fuel bills.

In February 1983 a report resulting from this investigation was submitted to the MSC. This stated that low flash cargo oil (crude oil) had, in some cases, been transferred to bunker systems and used as fuel.

The note said : "The transfer has, in some known cases, been accomplished by means of a cross connection between cargo and bunker piping systems. Liberia believes that the practice described in previous paragraphs is more widespread than may be presently apparent and is a serious source of danger to ships and personnel both at sea and in port and also to port installations which service tankers.'

The MSC discussed this problem and agreed on a circular which was sent out in June 1983. The aim of the circular was to warn Member Governments of the possibility of either deliberate or accidental contamination of bunkers by crude oil. It recalled that the Guidelines on Surveys under the 1978 Protocol to SOLAS require the examination of cargo and bunker piping systems and went on to urge Member Governments to advise surveyors to give special attention during surveys to the possibility of cross-connections between cargo and bunker piping systems.

Member Governments were also urged to advise shipowners and crew members of the need to carry out routine checks on the flammability of bunker spaces and to further advise shipowners and ship repairers that such a check should always be carried out before any "hot-work" is started in the region of bunker spaces.

Whilst the Committee agreed that random sampling of bunker tanks would act as a deterrent against the deliberate use of crude oil cargo to supplement the oil fuel, it felt this would be difficult to implement. However, the MSC urged Member Governments to require the testing of a sample from the bunkers in conjunction with the control procedures of the SOLAS Convention whenever there are clear grounds to believe (due to the odour of hydrocarbon vapours in the engine-room, irregularities in the cargo or bunker pipework or otherwise) that a ship may be using crude oil cargo as fuel.

Unlawful acts against passengers and crews

Concern about unlawful acts which threaten the safety of ships and the security of their passengers and crews has developed fairly recently. Since 1980 there have been cases of crews being kidnapped and ships being hijacked, deliberately run aground or blown up by explosives. Passengers have been threatened and sometimes killed.

In November 1985 the problem was considered by the 14th Assembly. A

proposal by the United States that measures to prevent such unlawful acts should be developed by IMO was supported and the Assembly adopted resolution A.584(14), which notes "with great concern the danger to passengers and crews resulting from the increasing number of incidents involving piracy, armed robbery and other unlawful acts against or on board ships, including small craft, both at anchor and under way."

The MSC was directed to develop, on a priority basis, detailed and practical technical measures, including both shoreside and shipboard measures, to ensure the security of passengers and crews on board ships. The measures were to take into account the work of the International Civil Aviation Organization (ICAO) in the development of standards and recommended practices for airport and aircraft security.

In December 1985 there was further support from the United Nations General Assembly, which called upon IMO "to study the problem of terrorism aboard or against ships with a view to making recommendations on appropriate measures."

The MSC finalized the measures at its September 1986 session. They are framed in sufficiently broad terms to enable Administrations to make proper use of them, taking into account their local conditions and circumstances. They state that Governments, port authorities, administrations, shipowners, ship masters and crews should take appropriate measures to prevent unlawful acts which may threaten passengers and crews. They are intended for application to passenger ships engaged on international voyages of 24 hours or more and the port facilities which service them. Although they are thus not intended for ferries and other passenger ships on short voyages, they can be used if appropriate.

The measures stress the need for port facilities and individual ships to have a security plan and appoint a security officer. The measures then go on to describe in considerable detail the way in which security surveys should be conducted and the security measures and procedures which should be adopted. Another section covers security training. The final section stresses the importance of exchanging information.

In November 1986 the Governments of Austria, Egypt and Italy proposed that IMO prepare a convention on the subject of unlawful acts against the safety of maritime navigation. They said that "such a convention has the aim to fill the gap in the present system regarding the suppression of such acts. In fact, while three universal conventions deal with the safety of air navigation ... the safety of maritime navigation is not covered by any similar international instrument."

The Governments then explained that the draft convention was to "pro-

Cruise liners have sometimes been the subject of terrorist attacks. An IMO convention is intended to help suppress unlawful acts of this type

vide for a comprehensive suppression of unlawful acts committed against the safety of maritime navigation which endanger innocent human lives, jeopardize the safety of persons and property, seriously affect the operation of maritime services and thus are of grave concern to the international community as a whole." For this purpose and in line with the above-mentioned conventions, the draft convention submitted by the Governments envisaged the absolute and unconditional application of the principle either to punish or to extradite.

The proposal was unanimously approved and work on the draft began at once.

The Council unanimously agreed that the matter deserved urgent action. In March 1988 a conference was held in Rome which adopted the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation. It includes provisions for the absolute and unconditional application of the principle either to punish or to extradite persons who commit or who are alleged to have committed offences specified in the Convention. A protocol extends the provisions of the Convention to unlawful acts against fixed platforms located on the continental shelf.

The two instruments both entered into force on 1 March 1992.

Drug trafficking

In many countries today the drugs trade is booming. More drugs are being consumed and other crimes are also on the increase as drug addicts resort to violence to obtain the money to obtain their "fix".

The most lucrative markets for drugs are in the developed economies of Europe and North America. The drugs themselves are produced in South America and certain parts of Asia. To get the drugs from supplier to consumer is a complex operation, involving various means of transport. But many drugs go by sea.

Drug smuggling is a crime in virtually every country in the world, but there is also evidence that mariners themselves take drugs in increasing numbers. An article in the *Proceedings of the Marine Safety Council* of August 1986 showed that the number of mariners in the United States found guilty of drugs offences or voluntarily surrendering increased from 301 in 1982 to 801 in 1985. The United States Coast Guard has proposed stringent new measures to curb a problem which, apart from moral considerations, has serious implications as far as maritime safety is concerned. There is no reason to believe that mariners of other nations are immune to the problem.

One of the organizations most concerned about the growth in drug trafficking is the Customs Co-operation Council (CCC), which over the years has prepared a variety of international measures to combat it. It works closely with the United Nations Division of Narcotic Drugs, the United Nations Fund for Drug Abuse Control and the International Narcotics Control Board.

In 1985 the CCC approached IMO to suggest exploring ways in which the two organizations might develop measures to counter drug trafficking. It was agreed that the subject should be placed on the agenda of the Facilitation Committee's next meeting. In the meantime the IMO Secretariat began looking into the feasibility of developing guidelines for mariners on how to prevent drugs being hidden on board ships, as well as information on the type and nature of drugs and what to do when drugs are found. Another organization, the International Chamber of Shipping (ICS) (which has consultative status with IMO and regularly attends IMO meetings) was also working with the CCC.

The Facilitation Committee, which met in March 1986, noted with great concern the alarming increase in drug abuse, in world-wide illicit drug trafficking and the alarming increase in use by traffickers of commercial means of transport, including ships, to smuggle drugs. It agreed to co-operate with the CCC and the ICS on guidelines to combat illicit drug trafficking.

The guidelines were issued in early 1988 and include:

- measures to prevent drugs being smuggled on board;
- ways of improving the detection of drugs concealed on board;
- measures to discourage the abuse of drugs by seafarers and their involvement in trafficking;
- information about the types, nature and characteristics of those drugs most commonly smuggled;
- education and training relating to the risks involved in drug smuggling and drug abuse; and
- action to be taken by ship operators and their employees when drugs are found.

Work on the drugs problem continued, with attention being paid to drug and alcohol abuse by seafarers. The Sub-Committee on Standards of Training and Watchkeeping prepared guidelines which were approved by the MSC and issued as a circular in May 1992.

This circular points out the importance of screening seafarers prior to their employment and also emphasizes the need for rehabilitation, education and counselling. It then establishes seven guidelines to be followed when setting up a drug and alcohol abuse screening programme.

A number of other United Nations bodies are also involved in drug prevention programmes and the circular refers to some of these, including the International Labour Office, the World Health Organization and the United Nations International Drug Control Programme. The circular says that any work or research conducted by IMO in this field will be shared with these organizations.

The importance of drug control is shown by the actions being taken by a number of other organizations in the shipping industry which attend IMO meetings. The ICS, the International Association of Independent Tanker Owners (INTERTANKO) and the Oil Companies International Marine Forum (OCIMF) have all published guidelines on the subject and these have been brought to the attention of IMO Member States and other organizations involved in shipping.❑

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