

**1994
PORT STATE CONTROL
REPORT**



AUSTRALIA

PREFACE

Port State control continues to be a key element in maintaining a safe international marine transport industry. Despite the continuing extensive political and public debate concerning maritime safety, some sections of industry continue to jeopardise life, property and the environment by operating unsafe ships and using less than competent crews.

The Australian Maritime Safety Authority (AMSA) conducts an extensive port State control program in an open, objective and accountable manner. Port State control has a cost in terms of resource allocation, however, given the need to protect both life and the environment, the program is readily justified. The adoption during 1994, by AMSA and a number of other Asia-Pacific countries, of a regional agreement in port State control will further assist in the aim of enhanced maritime safety standards through international sharing of information and the harmonisation of inspection procedures.

This report outlines the operation of AMSA's 1994 port State control program. The inspection rate of 57 % is evidence of AMSA's ongoing commitment to the program. However, the inspection rate is more than an indication of the number of ships inspected: it is a strong tangible signal to the owners and operators of unsafe ships that such ships risk detention should they visit an Australian port.

AMSA will continue to implement a rigorous port State control program. The owners and operators of safe vessels have nothing to fear from an AMSA control inspection. However, unsafe ships will be detained in accordance with AMSA's commitment to the IMO's objective of safe ships and clean seas.



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OVERVIEW

In accordance with international law each State has the sovereign right to exercise control over foreign flag ships within its territorial jurisdiction. In addition to territorial jurisdiction, a number of international maritime conventions adopted by the International Maritime Organization (IMO) and the International Labour Organisation (ILO) provide for countries to conduct control inspections of foreign ships visiting their ports (port State control).

The object of these conventions is to improve maritime safety, protect property, life and the marine environment and to promote and ensure compliance with acceptable on-board living and working conditions. The responsibility for ship safety and pollution prevention lies primarily with the flag State, the ship's owner and operator and its crew. However, many flag States are either unable or unwilling to maintain full and continuous control of their ships and increasing responsibility is placed on the port State.

Long term viable solutions to problems associated with substandard and unseaworthy vessels can only be achieved through international action by individuals, organisations and governments taking responsibility for ship safety. The answer lies in all owners or operators and flag States implementing convention requirements to acceptable levels. If such effective action is implemented there should be no room on the international shipping scene for the shipowner who seeks to operate ships which do not comply with the relevant international conventions.

An increased emphasis is being placed on crew competence and the manner in which ships are being operated. Port State control offers a mechanism through which these critical aspects can be monitored. The implementation of the International Safety Management (ISM) Code and subsequent development of a safety culture should provide the operational framework for the safe operation of vessels and the professional competence of their crews.

**PORT STATE CONTROL - APPLICATION**

Control inspections, under the authority of international conventions, are carried out to ensure that foreign flag ships are seaworthy, do not pose a pollution risk, provide a healthy and safe working environment and comply with relevant conventions. Such inspections are carried out on foreign vessels visiting Australian ports by AMSA marine surveyors.

When undertaking a control inspection the surveyor first conducts a primary inspection which consists of a visit on board to verify that necessary certificates and documents are valid, and to conduct a brief examination of the vessel to give the surveyor an opportunity to judge the vessel's general appearance and condition. Where certification is invalid or where there appears to be clear grounds to suspect that the ship and/or its equipment may not be in substantial compliance with the relevant convention standards a more detailed inspection is undertaken to determine whether the ship is substandard and/or unseaworthy.

Experiences gained by AMSA during primary inspections suggests that an appropriate assessment of a ship's condition cannot always be ascertained from an overall visual inspection of the ship and scrutiny of its certification. Consequently, a number of areas of the ship or items of equipment or machinery are identified by the surveyor for checking during the primary inspection in order to establish whether the ship's general condition and/or its equipment is in accordance with the standards implied by its certificates.

Grounds for carrying out a detailed inspection may consist of any of the following: a report or notification from another authority detailing problems with the vessel; report or complaint from the master, a crew member, or any person or organisation with a legitimate interest in the safe operation of the ship or in the prevention of pollution; the detection of serious deficiencies during a primary inspection or where there is concern that the crew may not be able to safely operate the vessel or its equipment.

**PORT STATE CONTROL IN AUSTRALIA**

Australia is one of an increasing number of countries with an active and clearly defined program of port State control inspections in accordance with the authority and responsibilities under SOLAS, MARPOL, Load Line, STCW and other relevant conventions. The current program of port State control inspections of foreign flag ships visiting Australian ports was commenced by the Department of Transport and Communications in 1986. In February 1987 this was extended to cover health and safety standards based on the International Labour Organisation's Merchant Shipping (Minimum Standards) Convention, 1976, No 147 (ILO 147).

The legislative responsibility and operation of the control activities has since been transferred, along with the majority of other functions previously performed by the Maritime Operations Division of the Department, to AMSA following its establishment in 1991.

AMSA is responsible for a number of maritime operational and regulatory functions and administers Australian law which gives effect to international maritime safety and pollution prevention conventions. In addition to Canberra based head office staff some 45 AMSA surveyors are employed at 16 strategically located offices. These staff conduct inspections in over 50 ports.

Australia has an obligation to implement and administer various conventions to which it is a signatory. Under its port State control regime, AMSA aims to inspect at least 25% of foreign ships visiting Australia. This percentage is based on the number of eligible ships visiting Australian ports during a given year. For this purpose eligible ships means ships which have not been inspected by AMSA within the 6 months (3 months for passenger ships) immediately preceding the date of arrival at a port. Inspection figures by port for 1994 and for the three previous calendar years are shown at Table 1.

These figures represent actual inspections undertaken by AMSA surveyors. In addition, Custom's officials check statutory certificates of all foreign vessels on arrival and departure from Australia. These non-technical certificate inspections approach 100% of all ships engaged on international voyages to and from Australia.

AMSA's "Instructions to Surveyors" concerning port State control inspections provide guidance on the selection of ships for inspection and for uniformity of inspections.

The selection system is aimed at providing the most efficient use of surveyor resources by targeting those classes of ships which experience dictates are likely to have a high risk profile. The target inspection level is designed to achieve a minimum inspection coverage for eligible ships of 25%.

It is important that such inspections, as far as possible, are carried out in a uniform manner. Included in the "Instructions to Surveyors" is a guide for primary inspections and more detailed instructions related to individual aspects of a vessel such as life saving and fire fighting equipment as well as the strength and watertight integrity of the hull.

The information on control inspections carried out by AMSA is stored and collated in a computer system (SHIPSYS) which operates on a minicomputer located in Canberra.

On-line and multi-user data entry is provided via AMSA's local area network, leased lines or through public lines via modems. Details of inspections are recorded by the inspecting surveyor immediately an inspection is completed. This information is then readily available to all AMSA surveyors throughout Australia. This reduces the likelihood of a well found vessel being unnecessarily inspected at subsequent ports.

The computer system is being continuously reviewed to ensure the integrity of data and to simplify procedures for users. During the year facilities were provided to increase processing capability, to connect all remote ports staffed by AMSA surveyors directly into the system and to improve the available range of report formats. A major overhaul of the system is intended to be undertaken in 1995 to improve its user friendliness, to make it more compatible with similar international systems and to enhance its use as a management tool.

Australia is committed to an active port State control inspection program. In the opinion of the House of Representatives Standing Committee on Transport, Communications and Infrastructure (the Committee), which is conducting an ongoing inquiry into ship safety, Australia's reputation for conducting port State control inspections was tangible proof that a vigorous port State control inspection system can be effective in deterring substandard ships from coming to Australia.

Further, this was deemed a major area in which Australia could directly influence levels of ship safety. The Committee's Report, "Ships of Shame", provided further support for the program.

In the past the program has been carried out with little contact with other countries. The establishment of the Asia-Pacific regional port State control scheme in 1994 should further strengthen the effectiveness of inspections.

Importantly, the regional port State control inspection system should serve as a further warning to ship owners and operators that unseaworthy and/or substandard ships will be detected and possibly detained.



PORT STATE CONTROL - INTERNATIONAL SCENE

Introduction

Widespread and growing concern caused by increasing numbers of unsafe ships has been reflected in discussions at IMO. During these discussions it was agreed that an effective method for combating the risk posed by substandard ships is port State control. It was also recognised that port State control procedures must be uniformly applied in all parts of the world to prevent unsafe ships being diverted to ports where port State control standards are either minimal or not enforced.

The experience and success of the countries participating in the Paris Memorandum of Understanding on Port State Control has shown that greater effectiveness can be achieved through regional cooperation in achieving a high level of inspections and consequential reduction in substandard ships. It enhances the effectiveness of identifying unsafe ships, coordinates action to ensure that serious deficiencies are rectified before departure, and ensures that all deficiencies are rectified within an appropriate time scale.

IMO Resolution A.682(17) - "Regional Cooperation in the Control of Ships and Discharges" recognises the important contribution to maritime safety and pollution prevention made through regional cooperation and invites Governments to consider concluding regional agreements on the application of port State control measures in cooperation with IMO.

Port State Control Initiatives in Other Regions

In line with Resolution A682(17), two other regions consisting of Asia-Pacific and Latin American countries have also established a Memorandum of Understanding on Port State Control, which are almost identical to the Paris MOU. Discussions on regional port State control are also taking place in the Caribbean.



SIGNIFICANT DEVELOPMENTS DURING 1994

Developments Resulting from the "Ships of Shame" Inquiry

The Report of the House of Representatives Standing Committee on Transport, Communications and Infrastructure (the Committee), "Ships of Shame", was published in December 1992. With reference to port State control inspections, the Committee was of the view that port State control was a key element in ensuring acceptable levels of maritime safety.

The Government responded to the Report in August 1993 and accepted the general thrust of the recommendations. In some cases AMSA had already instigated changes to procedures prior to the report's release and the safety program now benefits from those changes.

Following the inquiry a review of surveyor resources in the Pilbara region of Western Australia was undertaken. To increase capabilities and technical resources a naval architect position was transferred from Canberra to Fremantle and an additional surveyor stationed in Karratha. A further enhancement to AMSA's response capability was made by the establishment of an AMSA office in Port Lincoln in South Australia.

To enhance the technical capability of AMSA's surveyors a professional development program was developed by the Australian Maritime College under contract to AMSA. Eleven surveyors completed the first course during 1994.

In December 1994, AMSA commenced publishing the details of inspections which resulted in ships being detained. The following details are now being published on a monthly basis:

Ship name:
IMO number:
Classification Society:
Flag:
Deadweight:
Cargo Type:

Owners:
 Manager:
 Charterer:
 Charter Type:
 Port & Date of Inspection:
 Last PSC Inspection:
 Last Special Survey:
 Serious Deficiencies:
 Action Taken:

This information is distributed to a large number of media and industry sources.

In November 1994 the Committee tabled a progress report which focussed on the implementation of their December 1992 recommendations and the on-going campaign against unsafe shipping. The recommendations of this progress report focussed on changes to the IMO Convention in an effort to improve the accountability of member States, arguments for Australia's acceptance of ILO Convention 147 and for AMSA to produce performance indicators for the port State control program. The Government is currently considering the recommendations of this progress report.

Whilst not pre-empting the Government's response, AMSA has commenced to investigate possible performance indicators. In addition AMSA has held initial discussions with a London based research-institute to canvas the potential for a quantitative analysis of the effect of AMSA's inspection program on vessel availability and freight rates in certain Australian commodity trades.

Asia-Pacific Regional Cooperation on Port State Control

On 1st April 1994 a memorandum of understanding (MOU) on port State control entered into affect for a number of maritime nations in the Asia-Pacific region. This agreement, or MOU, requires each administration to establish and maintain an effective system of port State control with a view to ensuring that, without discrimination, foreign merchant ships visiting its ports comply with appropriate international standards. An inspection target rate has been set at 50% of ships operating in the region by the year 2000 and the agreement requires each administration to consult, cooperate and exchange information with the other Authorities in order to further the aims of the MOU.

The countries whose maritime administrations are parties to the MOU are Australia, Canada, China, Hong Kong, Japan, Korea, Malaysia, New Zealand, Papua New Guinea, Russian Federation, Singapore and Vanuatu.

To administer the implementation and ongoing operation of the agreement a committee and a secretariat has been formed. The committee is composed of a representative of each of the authorities that have adopted the MOU. A number of organisations and countries have attended as observers at committee meetings.

These include the International Maritime Organization (IMO), the International Labour Organisation (ILO), the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the Secretariat of the Paris MOU, United States of America, Fiji, Indonesia, Philippines, Solomon Islands, Thailand and Vietnam. The first meeting of the committee was held at Beijing in April 1994 and a secretariat has since been established in Tokyo to service the committee.

To facilitate the timely exchange of information and details of ship inspections between the members of the Asia-Pacific MOU, a computer data base has been established in Canada. AMSA commenced transferring details of its ship inspections to the data base in July 1994. Details of AMSA inspections are sent twice a week and information from the data base is retrieved as required.

Developments within the International Maritime Organization

IMO has recognised that not all flag States are able to ensure that their ships are fully maintained to international standards, thus placing an increased burden on port States. As part of IMO's more active approach to the safety of ships and their crews and the protection of the marine environment the Sub-Committee on Flag State Implementation (FSI) was formed.

Important objectives of the FSI Sub-Committee are to assess the current level of implementation of IMO instruments by flag States, to assess problems being experienced by States in implementing instruments, to identify the reasons for such problems and to make proposals to assist parties to implement and comply with the provisions of the instruments.

Non-compliance with IMO instruments is an issue identified in the "Ships of Shame" Report as being the cause of many problems of modern shipping.

The second session of the Sub-Committee (FSI 2) was held in February 1994. Major issues concerning port State control which were considered at that session included:

- the development of a code of conduct for port State control (PSC) surveyors;
- training and qualifications of PSC surveyors;
- amalgamation of all Assembly resolutions relating to PSC inspections.

As useful as these developments will be the Sub-Committee has yet to fully address the issue of accountability for parties to IMO conventions. Until the accountability issue is fully addressed a viable and sustainable solution to the current safety problems will not be developed. The current separation of maritime safety issues through the IMO and ship registration matters through UNCTAD does not assist in establishing a coordinated strategy aimed at addressing safety issues which stem from both operational and economic factors.

A number of important amendments were made to the SOLAS Convention by the 1994 Conference of Contracting Governments to the International Convention for the Safety of Life at Sea. Of particular importance to port State control is Regulation 4 of a new chapter XI. This new regulation "Port State Control on Operational Requirements" provides that a ship, when in a port of another contracting Government, is subject to control by officers duly authorised by such Government over operational requirements in respect of the safety of ships, when there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the safety of ships. This amendment to the SOLAS convention enters into force on 1 January 1996.

Other regulations adopted by the conference which will lead to improvements in the condition and operation of ships are guidelines for the authorisation of organisations acting on behalf of Administrations; requirements for enhanced surveys of bulk carriers and oil tankers and the requirement for ship owners and operators to implement the provision of the International Safety Management (ISM) Code.

During the course of the 18th Assembly, the Maritime Safety and Marine Environment Protection Committees (MSC and MEPC) considered a proposal for the establishment of an International Ship Information Database (ISID).

The intention of an ISID is to bring the ship inspection information of the various national and regional databases into a central database.

This information will then be available to assist both flag and port States to more effectively perform their control activities. Following the recommendation of the steering committee which conducted a feasibility study into the establishment of an ISID, the IMO has agreed to employ a consultant to conduct a detailed needs assessment and implementation proposal for the database.

Crew Competence

The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), which is concerned with crew competence, is currently under extensive review due to the lack of internationally accepted competence criteria. This absence of performance criteria is inhibiting AMSA from taking a more proactive stance in the area of crew competence. This review should correct the situation and assist AMSA in the implementation of control measures to assess the ability of crews to safely operate their ships.

Vessel Operations

In line with developments in European nations, port State control inspections are concentrating more on the management of the vessel and capability of the crew. Technological developments, such as sophisticated cargo handling systems, advanced engine and navigation control equipment and more prescriptive vessel traffic systems will extend the role of port State control in monitoring and enforcing acceptable safety standards.

PORT STATE CONTROL INSPECTIONS 1994



INSPECTIONS

During 1994, inspections were carried out on 2406 ships registered in 72 countries. Table 1 gives the number of inspections carried out in each port. The total number of individual ship visits to all Australian ports during 1994 is estimated to be 11,800. Many of these visits were made by regular traders and ships calling at more than one port. It is estimated that 4,198 "eligible" ships (eg a foreign ship not inspected during the previous six months) visited Australian ports during 1994. This gives an inspection rate for the year of approximately 57%.

The number of ships inspected from each flag State are listed in Table 2a.

The types of ships inspected are summarised in Table 3. It will be noted that well over half the vessels (60.59%) inspected were bulk carriers. This is slightly lower than last year's figure of 64.70%. Tables 4, 5 and 6 indicate the number of ship visits, differentiating between those with and without deficiencies. The total hours of a ship's delay beyond the scheduled sailing time is also included.



DETENTIONS

A ship is detained under the Navigation Act when the deficiencies observed during an inspection are considered by the inspecting surveyor to render the ship unseaworthy or substandard.

When intervention action is taken to detain a ship, AMSA follows the international convention requirements of informing the Consul or the nearest diplomatic representative of the ship's flag State and the appropriate classification society. Details of the intervention are subsequently reported to the IMO.

A ship is not deemed to be seaworthy under the Navigation Act unless:

- (a) it is in a fit state as to condition of hull and equipment, boilers and machinery, stowage of ballast or cargo, number and qualifications of crew including officers, and every other respect, to encounter the ordinary perils of the voyage then entered upon; and
- (b) it is not overloaded.

Under the Navigation Act a substandard vessel is one where conditions on board the ship are clearly hazardous to safety or health.

Serious deterioration of the hull structure, overloading or defective equipment such as life-saving, radio and fire-fighting equipment would be considered cause to render a ship unseaworthy. Vessels which seriously breach the provisions of Marine Orders Part 11 (Substandard Ships), which implements the spirit of ILO147, may also be detained if considered to be substandard. AMSA surveyors use their professional judgement to determine if a ship should be formally detained under the Navigation Act.

In 1994, 153 ships registered in 29 countries were observed to have deficiencies sufficiently serious to impair their seaworthiness and warrant detention. Table 2b gives the number of ships detained, according to flag State. The detention rate when expressed as a percentage of the total number of ships inspected was 6.36%. This is nearly double to the last year's detention rate of 3.59%. Bulk carriers accounted for 71.24 % of the ships detained in 1994.

The dominance of bulk carriers in the Australian statistics is again a reflection of the large numbers of this ship type visiting Australia, the rigorous conditions under which they operate and their age. The total vessel detention time for the year appears in Tables 4 to 6 according to ship category.



DEFICIENCIES

A deficiency is recorded when the condition of a ship's hull or its equipment does not conform to the requirements of the relevant IMO safety or pollution prevention conventions or where hazards to the health or safety of the crew exist which are considered to be in breach of ILO 147.

Deficiencies arise from:

- the absence of either equipment or approved arrangements required by conventions;
- non-compliance of equipment or arrangements with the appropriate specifications of the relevant convention; and,
- substantial deterioration of the ship or its equipment, such as life-saving appliances, fire-fighting equipment or radio equipment.

The 9,372 deficiencies observed on ships in 1994 are categorised in Table 7. The number of deficiencies in each category expressed as a percentage of the total deficiencies is also shown.

Relatively minor deficiencies are found on many ships. These may not pose an immediate hazard to the safety of the ship or its crew or passengers and may be rectified during the ship's normal stay in port and without disruption to its schedule.

Details of all deficiencies have been recorded in this report even though, when viewed in isolation, some may be considered as relatively minor. AMSA surveyors take into account the nature of the deficiency before deciding upon remedial action to be taken.

It will be noted that 2415 deficiencies were observed in life-saving appliances and 2027 in fire-fighting equipment. Deficiencies observed in life-saving appliances and fire-fighting equipment account for nearly half (47.40%) of the total number of deficiencies observed in 1994. Though this figure has decreased slightly from 1993, it is still alarming in view of the equipment's importance in the event of fire or a ship safety incident. It is believed many deficiencies might have been prevented with proper maintenance. Lack of maintenance may be due to inadequate management of ships by owners or operators, inadequate inspection or concern on the part of ship's officers or crew, inadequate provision of resources for adequate rectification, inadequate inspections by the flag State or inadequate surveys being undertaken by classification societies authorised by the flag State to perform inspections. The impact of reduced crew numbers on board vessels also contributes to a lack of time and/or resources available for equipment maintenance.

TABLE 1 - TOTAL INSPECTIONS BY PORT

PORT	NUMBER OF INSPECTIONS			
	1991	1992	1993	1994
Abbot Point	-	4	10	5
Albany	-	2	1	2
Ardrossan	3	-	-	7
Barry Beach	-	-	-	2
Bell Bay	11	4	7	24
Brisbane	68	122	120	148
Broome	-	-	-	1
Bunbury	-	6	6	12
Bundaberg	-	2	2	2
Burnie	10	13	9	8
Cairns	6	22	17	27
Cape Cuvier	-	2	-	-
Cape Flattery	-	-	-	1
Dalrymple Bay	-	6	36	29
Dampier	72	202	224	260
Darwin	9	16	26	23
Devonport	2	1	3	4
Eden	-	-	-	1
Esperance	-	-	-	5
Fremantle	29	48	45	42
Geelong	10	39	60	96
Geraldton	-	2	1	6
Gladstone	88	120	113	131
Gove	-	-	-	1
Hay Point	-	5	57	40
Hobart	1	3	1	3
Kurnell	-	-	12	15
Kwinana	66	86	118	141
Lucinda	-	-	-	5
Mackay	5	10	30	28
Melbourne	60	168	128	87
Mourilyan	1	2	9	7
Newcastle	48	237	232	264
Onslow	-	-	-	2
Point Wilson	-	2	-	1

NB Table continued on following page

Continued...

TABLE 1 - TOTAL INSPECTIONS BY PORT

PORT	NUMBER OF INSPECTIONS			
	1991	1992	1993	1994
Port Adelaide	76	104	66	62
Port Alma	3	2	2	9
Port Bonython	-	-	-	4
Port Botany	52	69	96	170
Port Giles	-	4	1	1
Port Hedland	26	128	139	168
Port Kembla	20	70	158	156
Port Latta	-	-	-	1
Port Lincoln	4	4	5	10
Port Pirie	2	5	9	19
Port Stanvac	-	5	3	3
Port Walcott	11	45	46	71
Portland	4	25	26	34
Spring Bay	-	1	1	3
Stanley	-	-	-	1
Sydney	82	102	127	184
Thevenard	3	3	4	6
Townsville	2	4	26	38
Useless Loop	1	-	-	-
Wallaroo	2	7	6	19
Weipa	-	1	1	3
Western Port	4	14	14	9
Whyalla	-	3	2	2
Yampi Sound	1	-	-	-
Other	1	-	4	3
TOTAL	783	1720	2003	2406

TABLE 2a - TOTAL FOREIGN SHIP INSPECTIONS BY FLAG

FLAG	1991	1992	1993	1994	FLAG	1991	1992	1993	1994
Algeria	-	-	-	1	Malaysia	22	23	32	36
Antigua and Barbados	-	5	6	15	Malta	4	8	16	31
Antilles Netherlands	7	5	10	10	Isle of Man	2	1	6	12
Austria	-	-	1	3	Marshall Islands	1	6	7	6
Bahamas	18	65	63	109	Mauritius	1	2	3	1
Bangladesh	1	-	-	-	Myanmar	-	18	11	3
Belgium	1	2	4	3	Mexico	-	-	-	1
Bermuda	3	5	9	12	Netherlands	14	20	27	32
Brazil	1	2	2	2	New Zealand	3	11	7	13
Bulgaria	-	5	1	1	Norway	61	93	104	90
Cayman Islands	-	-	5	1	Panama	101	273	298	407
Chile	-	2	1	-	Papua New Guinea	1	-	1	4
People's Republic of China	53	106	107	136	Philippines	64	161	169	190
Columbia	-	1	-	1	Poland	1	2	3	6
Cyprus	19	40	55	80	French Polynesia	-	-	2	1
Czechoslovakia	1	-	1	2	Portugal	-	-	1	2
Denmark	4	23	21	35	Qatar	-	-	1	2
Egypt	3	15	12	13	Romania	2	-	6	5
Estonia	-	-	1	1	Russian Federation	-	-	8	50
Fiji	2	1	5	1	Saint Vincent and Grenadines	5	17	12	29
France	3	12	10	17	Samoa	-	1	-	-
Germany	9	20	31	32	Saudi Arabia	5	8	3	4
Gibraltar	1	4	2	2	Singapore	16	60	69	76
Greece	54	119	143	182	Sri Lanka	1	1	1	1
Honduras	2	1	4	2	Suriname	-	-	1	-
Hong Kong	26	57	95	102	Sweden	1	2	3	-
India	15	23	48	44	Switzerland	1	1	3	3
Indonesia	4	5	9	9	Taiwan	12	32	35	42
Iran	9	9	28	22	Thailand	2	1	4	9
Ireland	-	-	1	2	Tonga	6	3	5	6
Israel	2	1	2	3	Turkey	4	11	11	21
Italy	6	5	10	12	Ukraine	-	-	-	16
Japan	44	90	109	110	Union of Soviet Socialist Republic	34	48	40	-
Jordan	-	-	1	1	United Arab Emirates (UAE)	2	1	1	5
Korea, Democratic People's Republic	1	10	13	-	United Kingdom	6	23	21	29
Korea Republic	13	36	48	58	United States of America	1	-	1	2
Kuwait	4	5	6	7	Vanuatu	6	12	16	15
Latvia	-	-	-	2	Venezuela	-	-	2	1
Lebanon	1	5	3	2	Yugoslavia	10	5	1	-
Liberia	77	170	199	209	Others	9	26	4	-
Luxemburg	1	1	2	11					
					TOTAL	783	1720	2003	2406

TABLE 2b - TOTAL SHIPS DETAINED BY FLAG

DETENTION BY FLAG	NUMBER OF SHIPS DETAINED	NUMBER OF SHIPS INSPECTED	DETENTIONS AS A % OF SHIPS INSPECTED
Columbia	1	1	100
Mauritius	1	1	100
Venezuela	1	1	100
Gibraltar	1	2	50
St Vincent & the Grenadines	8	29	28
Papua New Guinea	1	4	25
Saudi Arabia	1	4	25
Indonesia	2	9	22
People's Republic of China	24	136	18
Marshall Islands	1	6	17
Cyprus	12	80	15
Iran	3	22	14
Russian Federation	4	50	8
Barbados	1	15	7
Greece	13	182	7
India	3	44	7
South Korea	4	58	7
Panama	29	407	7
Philippines	13	190	7
Malta	2	31	6
Liberia	12	209	6
Turkey	1	21	5
Hong Kong	4	102	4
Norway	4	90	4
Singapore	3	76	4
Malaysia	1	36	3
Taiwan	1	42	2
Bahamas	1	109	1
Japan	1	110	1
TOTAL	153		

TABLE 3 - TOTAL FOREIGN SHIPS INSPECTED BY VESSEL TYPE

VESSEL TYPE	1991	1992	1993	1994
Chemical Tanker	21	55	54	68
Combined Oil/Chemical Tanker	-	1	5	7
Container Ship	60	128	144	197
Dry Bulk Carrier	430	1027	1296	1458
Dynamically Supported Craft	-	1	-	-
Factory Ship	-	-	1	-
Ferry	13	18	10	16
Fishing Vessel	-	1	3	-
Gas Carrier	15	14	39	44
General Dry Cargo	78	138	128	175
Heavy Lift Carrier	3	6	9	7
Livestock Carrier	9	19	17	36
Oil Tanker	43	68	92	115
Ore/Bulk/Oil Carrier	10	48	26	19
Other Type - Tanker	19	32	8	10
Pallets Carrier	-	1	-	2
Passenger V/L	-	-	11	17
Refrigerated Cargo Carrier	-	-	28	43
Research Ship	-	-	1	2
Ro-Ro Cargo Ship	13	37	42	61
Special Purpose Vessel	1	1	2	4
Supply Ship	-	5	4	9
Survey Vessel	1	1	1	1
Tug/Towing Vessel	3	3	6	6
Vegetable Oil Tanker	2	1	1	3
Vehicle Carrier	16	32	39	53
Woodchip Carrier	-	-	15	35
Other Types	10	21	21	18
TOTAL	783	1720	2003	2406

TABLE 4a - BULK CARRIER INSPECTIONS WITHOUT DEFICIENCIES

PORT	NUMBER				PERCENTAGE			
	1991	1992	1993	1994	1991	1992	1993	1994
Abbot Point	-	1	4	2	-	25.00	44.44	40.00
Ardrossan	1	-	-	-	33	-	-	-
Bell Bay	3	1	-	7	33.33	25.00	-	30.43
Brisbane	8	20	5	9	23.53	28.46	12.20	17.31
Bunbury	-	3	1	1	-	60.00	17.00	9.00
Burnie	4	2	2	-	80.00	22.22	28.57	-
Cairns	-	1	-	2	-	8.33	-	20.00
Dalrymple Bay	-	2	10	8	-	33.33	28.57	27.59
Dampier	9	70	51	19	14.06	38.67	25.12	8.56
Darwin	2	-	2	2	40.00	-	40.00	100.00
Devonport	-	-	1	-	-	-	50.00	-
Fremantle	2	2	1	-	66.67	33.33	20.00	-
Geelong	-	-	2	1	-	-	6.25	2.08
Geraldton	-	1	-	1	-	50.00	-	20.00
Gladstone	42	63	25	31	50.00	59.43	26.88	28.44
Gove	-	-	1	1	-	-	50.00	100.00
Hay Point	-	2	21	9	-	66.67	36.84	23.68
Kwinana	22	21	24	42	44.90	33.87	27.59	38.89
Lucinda	-	-	1	1	-	-	100.00	25.00
Mackay	3	2	11	5	60.00	22.22	39.29	20.00
Melbourne	1	1	2	3	6.67	3.70	11.76	33.33
Mourilyan	1	-	-	1	100.00	-	-	20.00
Newcastle	5	45	44	49	12.50	21.13	19.91	20.50
Port Adelaide	3	2	7	8	7.89	4.17	16.67	25.81
Port Botany	1	-	2	3	50.00	-	100.00	100.00
Port Giles	-	-	1	-	-	-	100.00	-
Port Hedland	4	12	2	5	18.18	10.34	1.53	3.14
Port Kembla	2	10	45	29	11.76	16.67	31.03	20.71
Port Lincoln	-	-	1	-	-	-	20.00	-
Port Pirie	-	-	-	2	-	-	-	10.53
Port Walcott	2	12	13	7	22.22	40.00	34.21	10.77
Portland	1	-	-	1	50.00	-	-	3.33
Spring Bay	-	1	-	1	-	100.00	-	33.33
Stanley	-	-	-	1	-	-	-	100.00
Sydney	2	5	6	4	14.29	25.00	37.5	44.44
Townsville	-	-	-	3	-	-	-	13.64
Wallaroo	-	-	-	1	-	-	-	6.25
Western Port	-	-	-	1	-	-	-	100.00
Whyalla	-	1	-	-	-	33.33	-	-
Yampi Sound	1	-	-	-	100.00	-	-	-
TOTAL	119	280	285	260				

TABLE 4b - BULK CARRIER INSPECTIONS WITH DEFICIENCIES

PORT	NUMBER				PERCENTAGE				* HOURS DELAYED DUE TO DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994
Abbot Point	-	3	5	3	-	75.00	55.56	60.00	-	-	-	22
Albany	-	1	1	2	-	100.00	100.00	100.00	-	-	-	-
Ardrossan	2	-	-	6	66.67	-	-	100.00	-	-	-	-
Bell Bay	6	3	6	16	66.67	75.00	100.00	69.57	-	-	-	138
Brisbane	26	32	36	43	76.47	61.54	87.80	82.69	-	-	-	38
Bunbury	-	2	5	10	-	40.00	83.33	90.91	-	-	102	70
Bundaberg	-	2	1	2	-	100.00	100.00	100.00	-	-	-	-
Burnie	1	7	5	4	20.00	77.78	71.43	100.00	-	-	-	-
Cairns	-	11	10	8	-	91.67	100.00	80.00	-	-	72	-
Cape Cuvier	-	2	-	-	-	100.00	-	-	-	-	-	-
Cape Flattery	-	-	-	1	-	-	-	100.00	-	-	-	-
Dalrymple Bay	-	4	25	21	-	66.67	71.43	72.41	-	17	-	83
Dampier	56	111	152	203	85.94	61.33	74.88	91.44	500	978	1092	2307
Darwin	3	3	3	-	60.00	100.00	60.00	-	-	-	-	-
Devonport	-	-	1	2	-	-	50.00	100.00	-	-	-	-
Eden	-	-	1	1	-	-	100.00	100.00	-	-	-	-
Esperance	-	-	-	5	-	-	-	100.00	-	-	-	-
Fremantle	1	4	4	3	33.33	66.67	80.00	100.00	-	-	-	-
Geelong	6	21	3	47	100.00	100.00	93.75	97.92	-	120	168	-
Geraldton	-	1	1	4	-	50.00	100.00	80.00	-	-	114	274
Gladstone	42	43	68	78	50.00	40.57	73.12	71.56	168	13	995	100
Gove	-	-	1	-	-	50.00	-	-	-	-	-	-
Groote Eylandt	-	-	2	-	-	100.00	-	-	-	-	-	-
Hay Point	-	1	36	29	-	33.33	63.16	76.32	-	-	-	238
Hobart	-	1	-	-	-	100.00	-	-	-	144	-	-
Kwinana	27	41	63	66	55.10	66.13	72.41	61.11	-	-	408	543
Lucinda	-	-	-	3	-	-	-	75.00	-	-	-	-
Mackay	2	7	17	20	40.00	77.78	60.71	80.00	-	-	-	6
Melbourne	14	26	15	6	93.33	96.30	88.24	66.67	-	-	-	-
Mourilyan	-	2	7	4	-	100.00	100.00	80.00	-	-	-	-
Newcastle	35	168	177	190	87.50	78.87	80.09	79.50	627	1527	65	148
Point Wilson	-	2	-	-	-	100.00	-	-	-	-	-	-
Port Adelaide	35	46	35	23	92.11	95.83	83.33	74.19	1	-	-	-
Port Alma	-	-	-	1	-	-	-	100.00	-	-	-	576
Port Botany	1	1	-	-	50.00	100.00	-	-	-	-	-	-
Port Giles	-	4	-	1	-	100.00	-	100.00	-	-	-	-
Port Hedland	18	104	129	154	81.82	89.66	98.47	96.86	8	303	529	610
Port Kembla	15	50	100	111	88.24	83.33	68.97	79.29	2159	1332	7	63

* Hours delayed beyond scheduled departure time to enable critical deficiencies to be rectified.

Continued...

TABLE 4b - BULK CARRIER INSPECTIONS WITH DEFICIENCIES

PORT	NUMBER				PERCENTAGE				* HOURS DELAYED DUE TO DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994
Port Latta	-	-	-	1	-	-	-	100.00	-	-	-	-
Port Lincoln	4	4	4	10	100.00	100.00	80.00	100.00	-	-	-	171
Port Pirie	2	5	8	17	100.00	100.00	100.00	89.47	-	-	-	207
Port Walcot	7	18	25	58	77.77	60.00	65.79	89.23	44	587	-	92
Portland	1	15	20	29	50.00	100.00	100.00	96.67	-	144	-	81
Spring Bay	-	-	-	2	-	-	-	66.67	-	-	-	-
Sydney	12	15	10	5	85.71	75.00	62.50	55.56	-	140	-	-
Thevenard	1	2	4	5	100.00	100.00	100.00	100.00	-	-	-	-
Townsville	1	3	16	19	100.00	100.00	100.00	86.36	-	-	-	-
Useless Loop	1	-	-	-	100.00	-	-	-	84	-	-	-
Wallaroo	2	7	5	15	100.00	100.00	100.00	93.75	-	-	-	-
Weipa	-	1	1	2	-	100.00	100.00	100.00	-	-	-	-
Western Port	1	4	2	-	100.00	100.00	100.00	-	-	-	-	-
Whyalla	-	2	2	2	-	66.67	100.00	100.00	-	-	817	-
TOTAL	332	779	1,033	1,232					3,591	5,305	4,369	5,767

* Hours delayed beyond scheduled departure time to enable critical deficiencies to be rectified.

TABLE 5a - TANKER INSPECTIONS WITHOUT DEFICIENCIES

PORT	NUMBER				PERCENTAGE			
	1991	1992	1993	1994	1991	1992	1993	1994
Barrow Is	1	-	-	-	100.00	-	-	-
Brisbane	6	4	10	23	42.86	18.18	28.57	58.97
Bunbury	-	-	-	-	-	-	-	-
Dampier	-	-	-	4	-	-	-	26.67
Darwin	-	1	2	3	-	50.00	66.67	75.00
Devonport	-	-	-	1	-	-	-	50.00
Fremantle	1	-	2	-	100.00	-	100.00	-
Geelong	6	2	3	4	42.86	18.18	23.08	47.62
Gladstone	-	11	14	6	-	61.11	58.33	58.62
Kurnell	-	-	8	7	-	-	72.73	77.78
Kwinana	4	8	-	16	50.00	66.67	-	57.14
Mackay	-	1	-	-	-	100.00	-	-
Melbourne	5	2	13	3	33.33	4.00	32.50	30.00
Newcastle	-	-	-	2	-	-	-	66.67
Port Adelaide	-	1	-	3	-	20.00	-	75.00
Port Botany	6	7	19	12	50.00	46.66	67.86	50.00
Port Stanvac	-	1	-	-	-	20.00	-	-
Sydney	5	5	18	20	62.50	38.46	47.37	64.52
Western Port	3	1	5	1	42.86	33.33	38.46	50.00
TOTAL	37	44	94	105				

TABLE 5b - TANKER INSPECTIONS WITH DEFICIENCIES

PORT	NUMBER				PERCENTAGE				HOURS DELAYED DUE TO DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994
Bell Bay	-	1	-	-	-	100.00	-	-	-	-	-	-
Brisbane	8	18	25	16	57.14	81.82	71.43	41.03	-	-	70	-
Bunbury	-	1	-	-	-	100.00	-	-	-	-	-	-
Burnie	-	1	1	-	-	100.00	100.00	-	-	-	-	-
Cairns	3	1	1	3	100.00	100.00	100.00	100.00	-	-	-	-
Dampier	-	-	-	11	-	-	-	73.33	-	-	-	-
Darwin	-	1	1	1	-	50.00	33.33	25.00	-	-	-	-
Devonport	-	-	-	1	-	-	-	50.00	-	-	-	-
Fremantle	-	2	-	-	-	100.00	-	-	-	-	-	-
Geelong	8	9	10	15	57.41	81.82	76.92	52.38	-	-	-	-
Gladstone	2	7	10	12	100.00	38.89	41.67	41.38	-	-	-	-
Kurnell	-	-	3	7	-	-	27.27	22.22	-	-	-	-
Kwinana	4	4	2	12	50.00	33.33	100.00	42.86	-	-	24	-
Melbourne	10	48	27	7	66.67	96.00	67.50	70.00	10	1	-	33
Mourilyan	-	-	-	1	-	-	-	100.00	-	-	-	-
Newcastle	-	-	1	1	-	-	100.00	33.33	-	-	-	-
Port Adelaide	2	4	-	1	100.00	80.00	-	28.00	-	-	-	-
Port Botany	6	8	9	12	50.00	53.33	32.14	50.00	-	-	18	-
Port Hedland	-	3	1	-	-	100.00	100.00	-	-	-	-	-
Port Stanvac	-	4	-	-	-	80.00	-	-	-	-	-	-
Portland	-	-	1	-	-	-	100.00	-	-	-	-	-
Sydney	3	8	20	11	37.50	61.54	52.63	35.48	999	31	-	-
Townsville	-	-	1	-	-	-	100.00	-	-	-	-	-
Western Port	4	2	8	1	57.14	66.67	61.54	50.00	-	-	-	-
TOTAL	50	122	121	112					1009	32	112	33

TABLE 6a - OTHER TYPE OF VESSEL INSPECTIONS - WITHOUT DEFICIENCIES

PORT	NUMBER				PERCENTAGE			
	1991	1992	1993	1994	1991	1992	1993	1994
Bell Bay	3	-	-	-	100.00	-	-	-
Brisbane	7	28	38	7	21.21	36.36	41.30	12.28
Burnie	2	1	1	2	40.00	33.33	50.00	50.00
Cairns	1	2	-	4	33.33	22.22	-	28.57
Dalrymple Bay	-	-	1	-	-	-	100.00	-
Dampier	8	16	19	9	72.73	55.17	51.35	39.13
Darwin	4	1	6	11	80.00	7.69	31.58	64.71
Devonport	2	1	1	-	100.00	100.00	100.00	-
Fremantle	9	9	20	16	34.62	21.95	51.28	41.03
Geelong	3	2	3	-	50.00	13.33	11.54	-
Geraldton	-	-	-	1	-	-	-	100.00
Gladstone	-	4	10	-	-	50.00	50.00	-
Hay Point	-	1	-	-	-	50.00	-	-
Hobart	-	2	-	-	-	100.00	-	-
Kurnell	-	-	21	1	-	-	80.77	100.00
Kwinana	14	43	44	2	66.70	66.15	69.84	40.00
Launceston	1	-	-	-	100.00	-	-	-
Mackay	-	-	-	2	-	-	-	66.67
Melbourne	9	12	18	36	19.15	9.92	17.31	52.94
Newcastle	1	5	2	7	12.50	20.83	20.00	31.82
Onslow	-	-	-	1	-	-	-	50.00
Port Adelaide	6	5	4	9	16.22	9.26	15.38	33.33
Port Alma	-	2	1	-	-	100.00	50.00	-
Port Bonython	-	-	-	3	-	-	-	75.00
Port Botany	18	23	61	90	94.73	31.08	60.40	62.94
Port Hedland	-	2	2	2	-	22.22	25.00	22.22
Port Kembla	-	2	5	6	-	18.18	33.33	37.50
Port Stanvac	-	3	2	2	-	42.86	28.57	66.67
Port Walcot	1	5	2	1	50.00	33.33	25.00	11.11
Sydney	28	20	76	80	38.89	22.73	60.32	55.56
Townsville	-	-	-	3	-	-	-	18.75
Western Port	4	4	2	3	50.00	30.77	13.33	50.00
TOTAL	121	193	339	298				

TABLE 6b - OTHER TYPE OF VESSEL INSPECTIONS - WITH DEFICIENCIES

PORT	NUMBER				PERCENTAGE				HOURS DELAYED DUE TO DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994
Abbot Point	-	-	1	-	-	-	100.00	-	-	-	-	-
Albany	-	1	-	-	-	100.00	-	-	-	-	-	-
Ardrossan	-	-	-	1	-	-	-	100.00	-	-	-	-
Barrow Is	-	1	-	-	-	100.00	-	-	-	-	-	-
Barry Beach	-	-	-	2	-	-	-	100.00	-	-	-	-
Bell Bay	-	-	1	1	-	-	100.00	100.00	-	-	-	-
Brisbane	26	49	54	50	78.79	63.64	58.70	87.72	-	-	180	15
Broome	-	-	-	1	-	-	-	100.00	-	-	-	-
Bunbury	-	-	-	1	-	-	-	100.00	-	-	-	-
Bundaberg	-	-	1	-	-	-	100.00	-	-	-	-	-
Burnie	3	2	1	2	60.00	66.67	50.00	50.00	-	-	-	-
Cairns	2	7	8	10	66.67	77.78	100.00	71.43	-	-	1	1
Dampier	3	13	18	14	27.27	44.83	48.65	60.87	-	-	39	16
Darwin	1	12	13	6	20.00	92.31	68.42	35.29	-	-	221	240
Devonport	-	-	-	-	-	-	-	-	-	-	-	-
Fremantle	17	32	19	23	65.38	78.05	48.72	58.97	-	-	-	4
Geelong	3	13	23	29	50.00	86.67	88.46	100.00	-	-	-	-
Gladstone	3	4	10	4	100.00	50.00	50.00	100.00	-	-	-	-
Hay Point	-	1	-	2	-	50.00	-	100.00	-	-	-	-
Hobart	1	-	1	3	100.00	-	100.00	100.00	-	-	-	-
Kurnell	-	-	5	-	-	-	19.23	-	-	72	-	-
Kwinana	7	22	19	3	33.33	33.85	30.16	60.00	-	-	-	-
Lucinda	-	-	-	1	-	-	-	100.00	-	-	-	-
Mackay	-	-	2	1	-	-	100.00	33.33	-	-	-	-
Melbourne	38	109	86	32	80.85	90.08	82.69	47.06	61	16	4	-
Mourilyan	-	-	2	1	-	-	100.00	100.00	-	-	-	-
Newcastle	7	19	8	15	87.50	79.17	80.00	68.18	-	-	-	-
Onslow	-	-	-	1	-	-	-	50.00	-	-	-	25
Point Wilson	-	-	-	1	-	-	-	100.00	-	-	-	-
Port Adelaide	31	49	22	18	83.78	90.74	84.62	66.67	148	-	-	-
Port Alma	3	-	1	8	100.00	-	50.00	100.00	-	-	-	-
Port Bonython	-	-	1	1	-	-	100.00	25.00	-	-	-	-
Port Botany	1	51	40	53	5.29	68.91	39.60	37.06	-	-	-	172
Port Giles	-	1	-	-	-	100.00	-	-	-	-	-	-
Port Hedland	4	7	6	7	100.00	77.78	75.00	77.78	-	-	175	109
Port Kembla	3	9	10	10	100.00	81.82	66.67	62.50	-	-	195	-
Port Pirie	-	-	1	-	-	-	100.00	-	-	-	-	-

Continued...

TABLE 6b - OTHER TYPE OF VESSEL INSPECTIONS WITH DEFICIENCIES

PORT	NUMBER				PERCENTAGE				HOURS DELAYED DUE TO DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994
Port Stanvac	1	4	5	1	100.00	57.14	71.43	33.33	-	-	-	-
Port Walcot	1	10	6	8	50.00	66.67	75.00	88.89	-	-	-	-
Portland	2	10	5	4	100.00	100.00	100.00	100.00	-	164	264	-
Spring Bay	-	-	1	-	-	-	100.00	-	-	-	-	-
Sydney	44	68	50	64	61.11	77.27	39.68	44.44	-	-	30	693
Thevenard	2	1	-	1	100.00	100.00	-	100.00	186	-	-	-
Townsville	1	1	10	13	100.00	100.00	100.00	81.25	-	-	48	-
Wallaroo	-	-	1	3	-	-	100.00	100.00	-	-	-	-
Weipa	-	-	-	1	-	-	-	100.00	-	-	-	-
Western Port	4	9	13	3	50.00	69.23	86.67	50.00	-	-	-	-
TOTAL	208	505	445	399					395	252	1,157	1,275

TABLE 7 - TOTAL & PERCENTAGE OF DEFICIENCY CATEGORIES

DEFICIENCY CATEGORIES	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL			
	1991	1992	1993	1994	1991	1992	1993	1994
Life-saving Appliances	840	2920	2010	2415	30.13	30.16	27.97	25.77
Fire-fighting Appliances	521	2088	1558	2027	18.69	21.57	21.68	21.63
General Safety	269	897	919	1186	9.65	9.26	12.79	12.65
Load Lines	258	915	695	1085	9.25	9.45	9.67	11.58
Propulsion and Auxiliary Machinery	138	374	316	550	4.95	3.86	4.40	5.87
Navigation Equipment	198	659	478	445	7.10	6.81	6.65	4.75
Accommodaion	171	513	277	399	6.13	5.30	3.85	4.26
Food and Catering	137	399	280	327	4.91	4.12	3.90	3.49
Cargo/Cargo Gear	61	148	137	150	2.19	1.53	1.91	1.60
Marpol Annex I (Oil)	11	79	109	150	0.39	0.82	1.52	1.60
Ship's Certificates	24	76	76	130	0.86	0.78	1.06	1.39
Mooring Arrangements	11	76	97	127	0.39	0.78	1.35	1.36
Radio	26	85	57	91	0.93	0.88	0.79	0.97
Working Space	26	50	24	81	0.93	0.52	0.33	0.86
Crew Qualifications/Crew	20	59	42	62	0.72	0.61	0.58	0.66
Accident Prevention	13	73	40	62	0.47	0.75	0.56	0.66
Tankers	4	31	18	29	0.14	0.32	0.25	0.31
Unknown Category Codes	38	178	37	24	1.36	1.84	0.51	0.26
Alarm Signals	8	29	9	13	0.29	0.30	0.13	0.14
Solas Operational Deficiencies	-	-	-	9	-	-	-	0.10
Marpol Annex II (Chemicals)	8	21	2	5	0.29	0.22	0.03	0.05
Other Deficiencies	6	12	5	4	0.22	0.12	0.07	0.04
Marpol Operational Deficiencies	-	-	-	1	-	-	-	0.01
TOTAL	2788	9682	7186	9372				

DEFICIENCIES BY CATEGORIES



LIFE-SAVING APPLIANCES

Life-saving appliances are essential to the survival of the crew and other on board personnel. It is therefore imperative that they be well maintained and ready for immediate use. The number of deficiencies observed in different types of life-saving equipment is given in Table 8. For 1994 these amounted to 25.77% of all deficiencies noted. The deficiencies found in individual items of equipment expressed as a percentage of all deficiencies is also given.

As was the case in 1993 more deficiencies were found in lifeboats and lifebuoys than any other type of life-saving appliance. Examples of deficiencies found in life-saving appliances include: holes in lifeboats; inoperative lifeboat engines; lifebuoy lights not working or missing; excessive wear on lifting hooks in lifeboats; life-jacket lights missing; retro-reflective tape missing from equipment; lifeboat engine mountings badly corroded; safety equipment not in lifeboats; and lifeboat launching systems inoperative.

TABLE 8 - LIFE-SAVING APPLIANCES - DEFICIENCIES

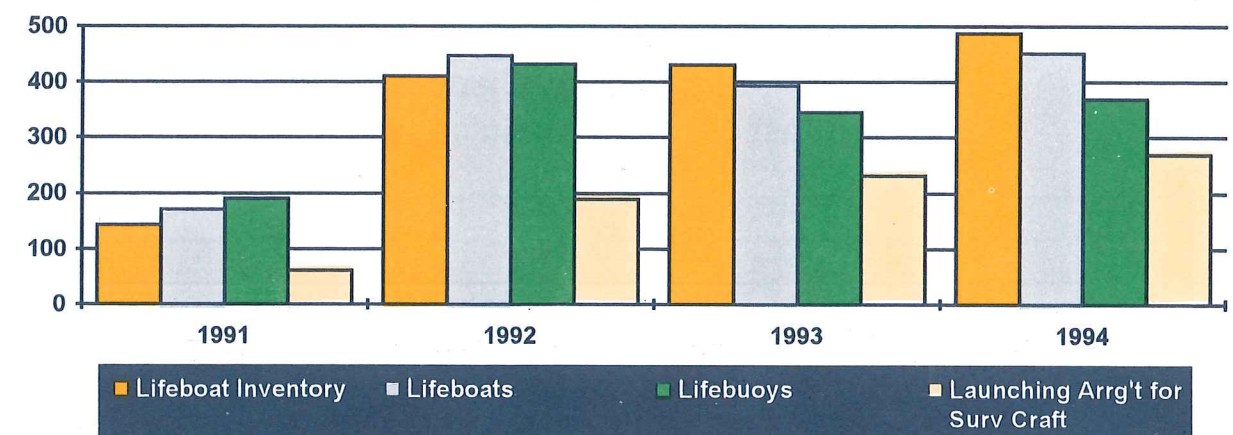
ITEM	NUMBER OF OCCURRENCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Lifeboat Inventory	143	411	431	487	4.97	5.77	6.00	5.20
Lifeboats	173	447	394	452	6.02	6.28	4.48	4.82
Lifebuoys	191	433	345	369	6.64	6.08	4.80	3.94
Launching Arrangement - Survival Craft	61	189	232	270	2.12	2.65	3.23	2.88
Embarkation Arrangement - Survival Craft	35	77	67	155	1.22	1.08	0.93	1.65
Inflatable Liferrafts	68	107	110	109	2.36	1.50	1.53	1.16
Lifejackets	47	97	85	105	1.63	1.36	1.18	1.12
Stowage of Liferrafts	8	65	61	101	0.28	0.91	0.85	1.08
Distress Flares	41	75	100	92	1.43	1.05	1.39	0.98
Stowage of Lifeboats	-	25	20	45	-	0.35	0.28	0.48
EPIRB's for Survival Craft	7	16	16	38	0.24	0.22	0.22	0.41
Launching Arrangement - Rescue Boats	1	6	18	35	0.03	0.08	0.25	0.37
Training/Instruction Manual	2	25	21	23	0.07	0.35	0.29	0.25
Line-Throwing Appliances	7	9	12	17	0.24	0.13	0.16	0.18

Continued...

TABLE 8 - LIFE-SAVING APPLIANCES - DEFICIENCIES

ITEM	NUMBER OF OCCURRENCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Means of Recovery of LSA	-	4	13	12	-	0.06	0.18	0.13
Rescue Boat	-	-	7	6	-	-	0.10	0.06
Immersion Suits	4	4	4	3	0.14	0.06	0.05	0.03
Stowage of Rescue Boats	-	2	-	3	-	0.03	-	0.03
Embarkation Arrangement - Rescue Boats	-	4	9	2	-	0.06	0.12	0.02
Record of Inspection/Maintenance	-	2	3	2	-	0.03	0.04	0.02
Buoyant Apparatus	3	1	3	2	0.10	0.01	0.04	0.02
Emergency Equip for 2-way Communication	-	1	1	2	-	0.01	0.01	0.02
Thermal Protective Aids	-	4	3	1	-	0.06	0.04	0.01
Portable Radio App for Surv Craft	5	1	-	1	0.17	0.01	0.13	0.01
General Emergency Alarm	-	1	1	-	-	0.01	0.01	-
Rigid Liferaft	-	-	1	-	-	-	0.01	-
Rescue Boat Inventory	-	13	-	-	-	0.18	-	-
Other	44	61	53	83	1.53	0.86	0.74	0.89

Life-saving Appliances Most Frequent Deficiencies





FIRE-FIGHTING APPLIANCES

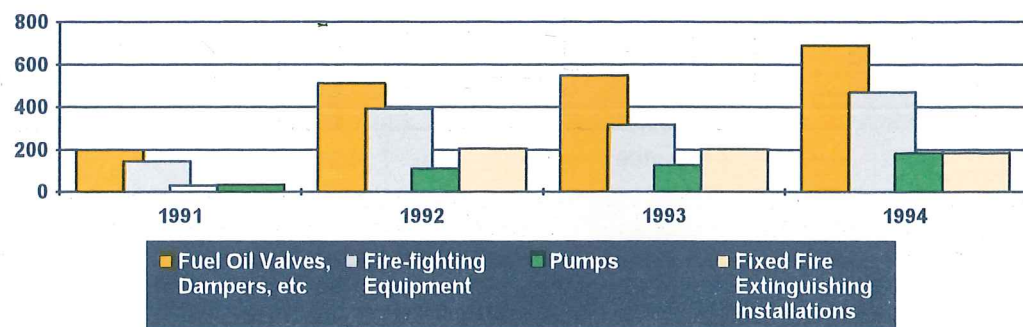
Fire is perhaps the greatest hazard faced by ship's crews. It is therefore vital that appliances used to fight fires be well maintained and ready for immediate use. Table 7 shows that 21.63% of all deficiencies noted in 1994 were related to fire-fighting equipment. Table 9 shows the number of deficiencies noted in different types of equipment. The percentage of each when related to all deficiencies is also shown.

Typical examples of deficiencies related to the detection, extinction or risk of fire are: fire hoses missing; fire hose nozzles missing; defective breathing apparatus; excessive oil accumulation in machinery spaces; fire detectors broken; fire hoses holed; fire main holed; air exclusion flaps on ventilators serving cargo and machinery spaces broken, missing or inoperative.

TABLE 9 - FIRE FIGHTING APPLIANCES - DEFICIENCIES

ITEM	NUMBER OF OCCURRENCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Fuel Oil Valves, Dampers, etc	200	513	547	690	6.95	7.21	7.61	7.36
Fire-fighting Equipment	146	391	316	469	5.08	5.49	4.40	5.00
Pumps	29	112	125	185	1.01	1.57	1.74	1.97
Fixed Fire Extinguishing Installations	33	205	202	183	1.15	2.88	2.81	1.95
Appliances (General Equipment)	37	77	81	97	1.29	1.08	1.13	1.03
Prevention	11	49	65	83	0.38	0.69	0.90	0.89
Personal Equipment	15	79	41	70	0.52	1.11	0.57	0.75
International Shore Connection	6	27	48	60	0.21	0.38	0.67	0.64
Detection System	3	5	5	26	0.10	0.07	0.07	0.28
Inert Gas System	2	4	2	-	0.07	0.06	0.03	-
Other	39	105	126	164	1.36	1.47	1.75	1.75

Fire-fighting Appliances Most Frequent Deficiencies



SHIP'S CERTIFICATES

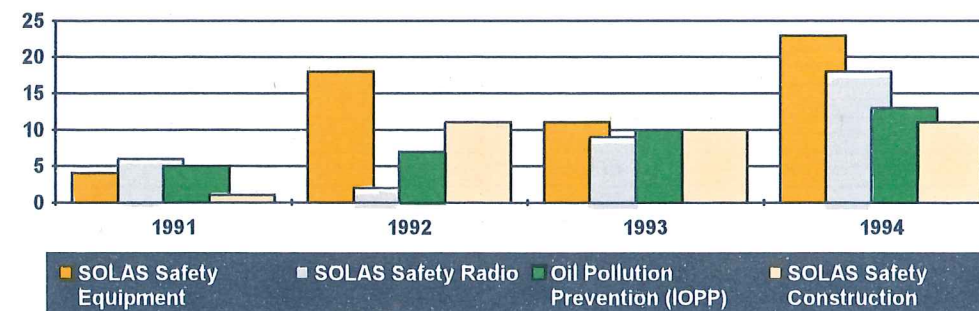
Certificates are issued to ships under international conventions concerned with ship safety and prevention of marine pollution. They are important because they provide prima facie evidence of compliance with the requirements of the relevant convention. The number of deficiencies observed in certificates issued to ships amounted to some 1.39% of the total number of deficiencies observed.

Examples of deficient certification are: period of validity expired; overdue periodic inspections; failure to issue new certificates when a ship transfers from one flag State to another, and documents incomplete. Table 10 indicates the number of ships inspected with deficient or invalid certificates by certificate type.

TABLE 10 - SHIP'S CERTIFICATES - DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
SOLAS Safety Equipment	4	18	11	23	0.14	0.25	0.15	0.25
SOLAS Safety Radio	6	2	9	18	0.21	0.03	0.12	0.19
Oil Pollution Prevention (IOPP)	5	7	10	13	0.17	0.10	0.14	0.14
SOLAS Safety Construction	1	11	10	12	0.03	0.15	0.14	0.13
Load Lines	3	8	5	9	0.10	0.11	0.07	0.10
Ship Log Book - Entries	-	-	2	8	-	-	0.03	0.09
Dangerous Chemicals in Bulk (COF/IBC Code)	-	-	-	2	-	-	-	0.02
Minimum Safe Manning Certificate	-	-	1	1	-	-	0.01	0.01
Dangerous Chemicals in Bulk (COF/BC Code)	-	-	-	1	-	-	-	0.01
Liquid Gases Bulk (COF/CG Code)	-	-	1	-	-	-	0.01	-
Liquid Gases Bulk (COF/IGC Code)	-	-	1	-	-	-	0.01	-
D of C (Dangerous Goods)	-	-	1	-	-	-	0.01	-
Other	5	6	25	43	0.17	0.08	0.35	0.46

Ship's Certificates Most Frequent Deficiencies





GENERAL SAFETY

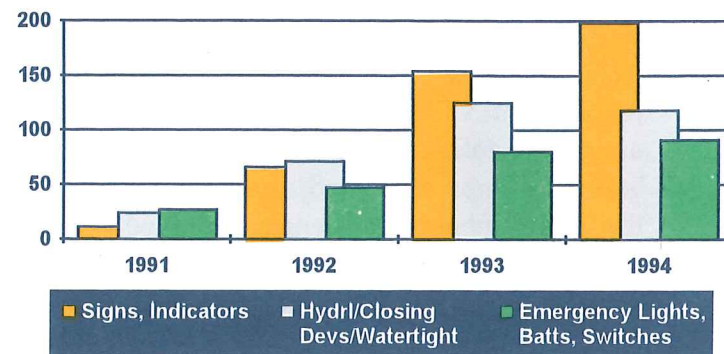
Table 11 records the deficiencies observed in a range of safety items other than those included under other specific categories. This category accounts for 12.65% (Table 7) of the total number of deficiencies observed. Of particular note is the structural category (hull, deck, bulkheads etc). This includes damage and deterioration of the hull which frequently rendered the ship unseaworthy. The number of structural deficiencies observed under this item amount to about 6% of the total number of deficiencies in this category.

Damaged gangways, accommodation ladders, pilot ladders, improperly adjusted steering gear, corroded cable trays and trunking, safety plans not exhibited, faulty closing appliances and electrical systems, and serious wastage or fracture of hull side frames, transverse deck beams and deck plating are examples of deficiencies in this general category.

TABLE 11 - GENERAL SAFETY - DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Signs, Indicators	11	66	154	198	0.38	0.93	2.14	2.11
Hydr/Closing Devices	24	71	125	118	0.83	1.00	1.74	1.26
Means of Escape	27	42	64	102	0.94	0.59	0.89	1.09
Electric Equipment in General	10	53	71	92	0.35	0.74	0.99	0.98
Emergency Lights, Batts, Switches	27	57	80	91	0.94	0.80	1.11	0.97
Gangway, Accommodation Ladder	31	60	48	87	1.08	0.84	0.67	0.93
Deck Beams, Hull, Bulkheads	38	70	55	66	1.32	0.98	0.77	0.70
Steering Gear	6	32	64	55	0.21	0.45	0.89	0.59
Ballast Fuel and Other Tanks	13	18	17	54	0.45	0.25	0.24	0.58
Stability/Strength	-	10	23	45	-	0.14	0.32	0.48
Musters and Drills	5	13	30	38	0.17	0.18	0.42	0.41
Pilot Ladders	27	24	31	36	0.94	0.34	0.43	0.38
Safety Plans	10	17	17	20	0.35	0.24	0.24	0.21
Emergency Installations	4	1	8	14	0.14	0.01	0.11	0.15
Hull Damage Impairing Seaworthiness	1	-	5	10	0.03	-	0.07	0.11
Other	35	94	127	160	1.22	1.32	1.77	1.71

**General Safety
Most Frequent Deficiencies**



NAVIGATION

The availability of up to date charts and publications such as nautical almanacs, tide tables, sailing directions, lists of lights and radio signals make an important contribution to ship safety. They enable a ship's position to be determined relative to geographical features and navigation hazards. Well maintained electronic equipment such as radar, depth indicators, gyro compasses also assists safe snavigation and position finding. Radar, navigation lights, day signals and ship's whistles assist in the avoidance of collisions with other ships.

The number of deficiencies observed in respect of each item are tabulated in Table 12, together with the corresponding percentage related to the total number of deficiencies. These deficiencies represented 4.75% of all deficiencies observed in 1994.

Examples of typical deficiencies in this category are: out of date charts; insufficient charts for the intended voyage; magnetic compasses requiring correction; defective navigation lights; publications missing and direction finding equipment defective.

**Navigation
Most Frequent Deficiencies**

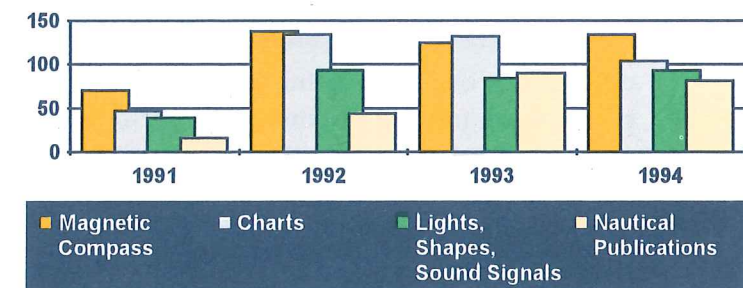


TABLE 12 - NAVIGATION - DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Magnetic Compass	70	138	125	134	2.43	1.94	1.74	1.43
Charts	47	134	132	104	1.63	1.88	1.84	1.11
Lights, Shapes, Sound Signals	39	93	84	93	1.36	1.31	1.17	0.99
Nautical Publications	16	44	90	81	0.56	0.62	1.25	0.86
Radar	8	11	12	6	0.28	0.15	0.16	0.06
Signalling Lamp	2	9	4	6	0.07	0.13	0.05	0.06
Gyro Compass	3	3	7	3	0.10	0.04	0.10	0.03
Shipborne Navigational Equipment	3	8	5	2	0.10	0.11	0.07	0.02
International Code of Signals	2	-	-	2	0.07	-	-	0.02
Equipment	2	4	4	1	0.07	0.06	0.05	0.01
Echo Sounder	2	3	1	1	0.07	0.04	0.01	0.01
Log	-	1	-	1	-	0.01	-	0.01
Revolution Counter	-	-	1	-	-	-	0.01	-
Other	4	13	13	11	0.14	0.18	0.18	0.12



MARINE POLLUTION - OIL

Annex 1 of the International Convention for the Prevention of Pollution from Ships prescribes practices to be observed and equipment to be carried on ships to protect the world's oceans from pollution by oil discharged from ships. The requirements of Annex 1 are audited during port State control inspections.

Table 13 records the number of deficiencies observed in each category and the percentage of each in relation to the total number of deficiencies. Typical examples of the deficiencies observed in this category are: oil record book missing or entries not up to date; equipment for separating oil from water not in working order and devices for measuring the oil content of water not working.

**Marine Pollution - Oil
Most Frequent Deficiencies**

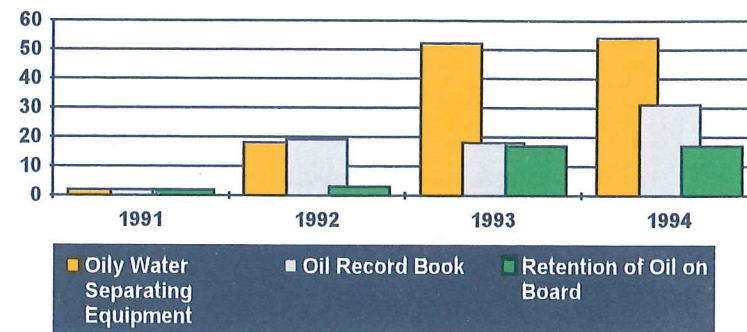


TABLE 13 - MARINE POLLUTION - OIL; DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Oily Water Separating Equipment	2	18	52	54	0.07	0.25	0.72	0.58
Oil Record Book	2	19	18	31	0.07	0.27	0.25	0.33
Retention of Oil on Board	2	3	17	17	0.07	0.04	0.23	0.18
Pump Piping and Discharge Arrangement	-	-	4	11	-	-	0.05	0.12
Oil Disch. Monitor Cont. System	-	10	4	10	-	0.14	0.05	0.11
Control of Discharge of Oil	-	8	6	6	-	0.11	0.08	0.06
15 ppm Alarm Arrangements	-	6	3	6	-	0.08	0.04	0.06
Standard Discharge Connection	-	2	-	1	-	0.03	-	0.01
Oil/Water Interface Detector	-	-	-	1	-	-	-	0.01
Segregated Oil and Water Ballast	3	-	2	-	0.10	-	0.03	-
Other	2	2	3	13	0.07	0.03	0.04	0.14



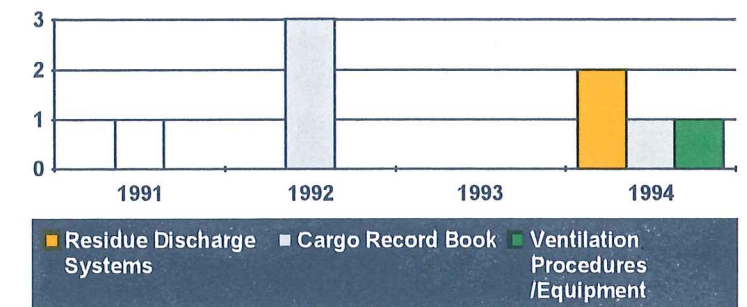
**MARINE POLLUTION
CHEMICALS**

The purpose of Annex II of the International Convention for the Prevention of Pollution from Ships is to protect the seas from pollution by noxious liquid substances carried on chemical tankers. These substances may be harmful to human health and marine resources. Examples of noxious liquid substances are coal tar, hydrochloric acid, motor fuel anti-knock compounds and vegetable oils.

Annex II requires, amongst other things, that details of all operations involving cargo or ballast should be recorded in a Cargo Record Book.

This record is required to be kept on board ships engaged in the carriage of noxious liquid substances in bulk and made available for inspection. The results of inspections performed under Annex II are recorded in Table 14.

**Marine Pollution - Chemicals
Most Frequent Deficiencies**



A feature of the results is the small number of deficiencies observed, 5 or 0.05% of all deficiencies. The results indicated that the requirements of Annex II are being observed by the majority of chemical tankers.

TABLE 14 - MARINE POLLUTION - CHEMICALS; DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Residue Discharge Systems	-	-	-	2	-	-	-	0.02
Cargo Record Book	1	3	-	1	0.03	0.04	-	0.01
Ventilation Procedures/Equipment	-	-	-	1	-	-	-	0.01
Prohibited disch of NLS Slop	-	-	1	-	-	-	0.01	-
Tankwashing Equipment	-	1	-	-	-	0.01	-	-
Cargo Heat/System Cat B Subs	-	1	-	-	-	0.01	-	-
Pollution Report	-	1	-	-	-	0.01	-	-
Other (Annex II)	7	9	1	1	0.24	0.12	0.01	0.01



CREW CERTIFICATION

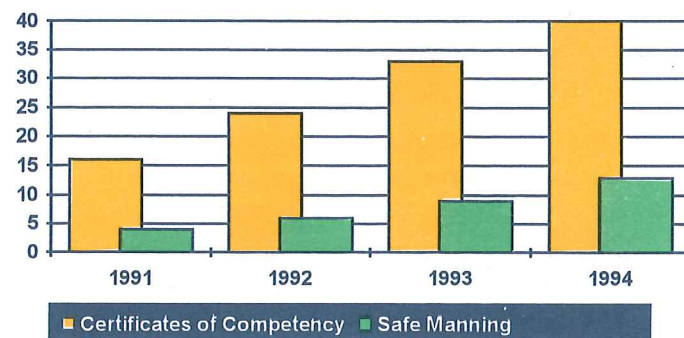
It is a requirement of the STCW Convention for the crews of ships to be properly trained and qualified. These elements of manning are important because the safety of a ship, its crew, passengers, cargo and the protection of the marine environment depend to a large extent on the training, experience and competence of crew. The majority of deficiencies in this category relate to the minimum international standards for certificates issued under the STCW Convention. It is the responsibility of each flag State to determine the manning of ships under its jurisdiction and to issue each ship with a safety manning certificate.

Where the number and category of seafarers on a ship comply with such a document it is accepted as evidence that a ship is safely manned. If a ship does not carry such a document and doubt arises as to whether it is safely manned, the matter is resolved in consultation with the appropriate authority of the flag State concerned.

TABLE 15 - CREW CERTIFICATION - DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Certificates of Competency	16	24	33	40	0.56	-	0.46	0.43
Safe Manning	4	6	9	13	0.14	0.08	0.12	0.14
Certificated Persons for Survival Craft	-	-	-	1	-	-	-	0.01
Other	-	9	-	8	-	0.13	-	0.09

**Crew Certification
Most Frequent Deficiencies**



The types of deficiency in this category, their number and the percentage of each in relation to the total number of deficiencies observed in 1994 are recorded in Table 15. For 1994 these deficiencies accounted for 0.66% of all deficiencies. Examples of deficiencies in each category include navigational watches being kept by uncertificated officers and officers' certificates not being endorsed for the particular type of ships they are serving on (eg oil tankers, gas carriers and chemical tankers).



LOAD LINE

The International Load Line Convention 1966 requires load lines to be marked on the sides of commercial ships. Load lines indicate the maximum permissible draft to which a ship may be loaded. Its observance prevents ships being overloaded and ensures that adequate reserve buoyancy is maintained. Another objective of the Convention is the provision of a safe working platform for the crew.

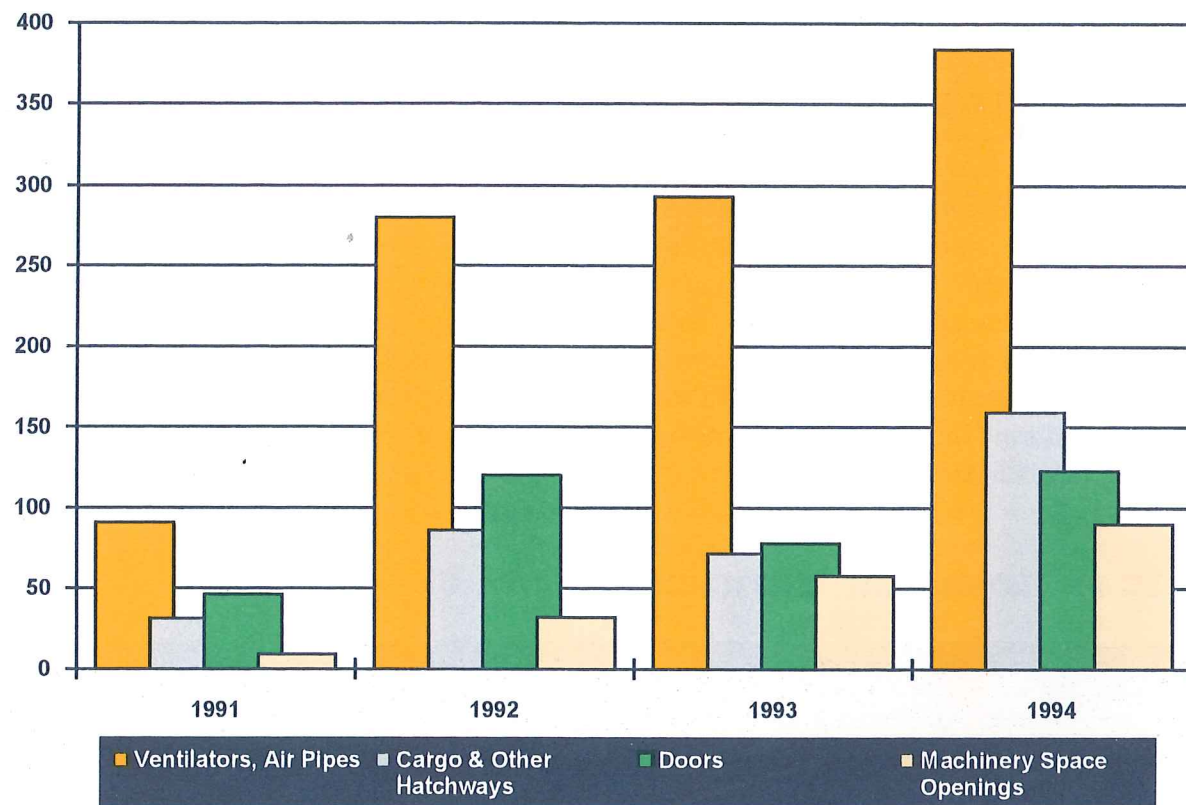
A ship's reserve buoyancy is dependent on openings, through which water may enter the hull, being maintained in a watertight condition. Water entry may occur for example through port holes, doorways, cargo hatch openings, ventilators and air pipes. Features of a ship which contribute to achieving a safe working platform include well maintained bulwarks, external ladders and rails at ship sides.

The results of the inspections of load line matters in 1994 are tabulated in Table 16. These deficiencies amounted to 11.58% of all deficiencies observed. It will be noted that the condition of ventilators, air pipes, doors and hatchways on 666 occasions had deteriorated sufficiently to warrant repair. This represents 61.50% of the total number of deficiencies recorded in the load line category and some 7.05% of all deficiencies observed. Many of these could have been avoided by adequate maintenance. Examples of other deficiencies in this category are: cargo hatch cover securing devices missing or inoperable; sounding pipe caps missing; air pipes holed; securing devices on watertight doors missing; holes in cargo hatch covers; doors not watertight; manhole covers corroded; unsafe external ladders and rails at the side of ships broken or missing.

TABLE 16 - LOAD LINE - DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Ventilators, Air Pipes	91	280	293	384	3.16	3.93	4.08	4.10
Cargo and Other Hatchways	31	86	72	159	1.08	1.21	1.00	1.70
Doors	46	120	78	123	1.60	1.69	1.09	1.31
Machinery Space Openings	9	32	58	90	0.31	0.45	0.81	0.96
Cover (Hatch, Port Tarps, Etc)	18	34	50	89	0.63	0.48	0.70	0.95
Railings, Catwalks	18	37	43	88	0.63	0.52	0.60	0.94
Scuppers, Inlets, Etc	-	6	10	32	-	0.08	0.14	0.34
Windows, Slide Scuttles	9	18	29	24	0.31	0.25	0.40	0.26
Freeboard Marks	5	9	15	15	0.17	0.13	0.21	0.16
Manholes/Scuttles	9	8	10	13	0.31	0.11	0.14	0.14
Freeing Ports	1	-	1	1	0.03	-	0.01	0.01
Cargo Ports, Etc	-	-	1	1	-	-	0.01	0.01
Lashings (Timber)	-	-	-	1	-	-	-	0.01
Other	21	27	35	65	0.73	0.38	0.49	0.69

Load Line Most Frequent Deficiencies



ALARM SIGNALS

Alarms indicate the existence of a potentially unsafe condition and consequently may contribute significantly to the safety of the ship. Alarms can be categorised as emergency and primary alarms. The former includes general and fire alarms. General alarms are used to alert persons on a ship to an emergency and to summon passengers and crew to muster stations. Fire alarms summon crews to fight fires. Primary alarms alert the crew to a condition which requires prompt attention to prevent an emergency condition arising. Examples are flooding and machinery malfunction alarms.

Thirteen alarms of various types were found to be either inoperable or not working satisfactorily. This represented 0.14% of all deficiencies observed. Table 17 gives the distribution of deficiencies under this category.

Alarm Signals Most Frequent Deficiencies

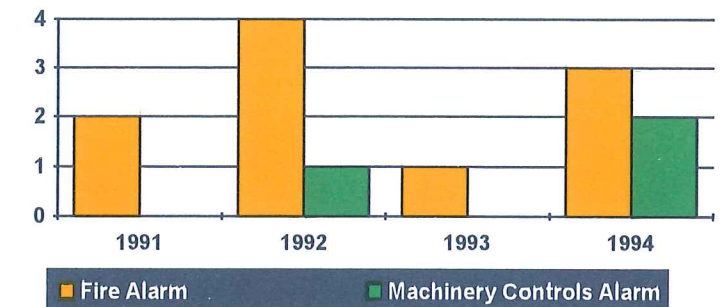


TABLE 17 - ALARM SIGNALS - DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Fire Alarm	2	4	1	3	0.07	0.06	0.01	0.03
Machinery Control Alarm	-	1	-	2	-	0.01	-	0.02
General Alarm	1	1	3	1	0.03	0.01	0.04	0.01
Engineer's Alarm	-	3	1	1	-	0.04	0.01	0.01
UMS - Alarms	-	-	-	1	-	-	-	0.01
Inert Gas Alarm	2	-	1	-	0.07	-	0.01	-
Steering Gear Alarm	2	5	-	-	0.07	0.07	-	-
Boiler Alarms	-	1	-	-	-	0.01	-	-
Other	1	6	3	5	0.03	0.08	0.04	0.05

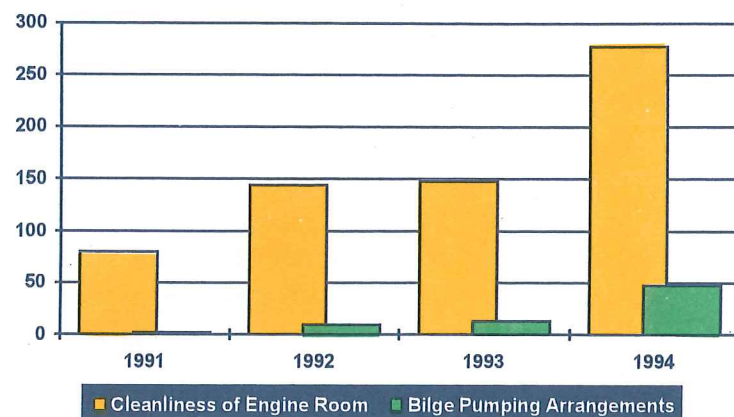


PROPULSION & AUXILIARY MACHINERY

The engine rooms of ships and other spaces containing machinery are high risk fire areas because of the presence of hot surfaces and combustible oil. It is therefore important that good "house-keeping" practices be adopted to prevent the accumulation of oil and other combustible material in these spaces. The results of machinery space inspections are recorded in Table 18. For 1994 such deficiencies accounted for 5.87% of all observed deficiencies. The cleanliness of engine rooms was the major deficiency in this category.

This may be mainly attributed to the accumulation of oil impregnated cleaning cloths in machinery spaces and excessive amounts of oil on the floors and in the bilges of those spaces. Examples of other deficiencies observed in this category included inoperable remote controls on boiler safety valves; defective fuel oil valves on main and auxiliary engines; sea water inlet valves

Propulsion & Auxiliary Machinery Most Frequent Deficiencies



incapable of operating; defective generators; excess oil leakage from boiler fuel pumps and boiler fuel burners; and improperly maintained steering motors. Defective fuel oil pumps and air compressors (causing shortage of air for starting main engines) were also observed.

TABLE 18 - PROPULSION & AUXILIARY MACHINERY - DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Cleanliness of Engine Room	80	144	148	278	2.78	2.02	2.06	2.97
Bilge Pumping Arrangements	2	9	13	47	0.07	0.13	0.18	0.50
Auxiliary Engine	13	14	26	38	0.45	0.20	0.36	0.41
Insulation Contaminated	2	9	14	25	0.07	0.13	0.19	0.27
Guards/Fencing - Dangerous Items	11	14	18	19	0.38	0.20	0.25	0.20
Propulsion Main Engine	7	6	12	18	0.24	0.08	0.16	0.19
UMS - Provisions	-	-	2	1	-	-	0.03	0.01
Other	23	40	83	124	0.80	0.56	1.16	1.32



RADIO

The ability to transmit and receive marine safety information is of vital importance to safety at sea. This information consists not only of distress messages but also receipt of weather forecasts, medical advice and warnings of navigation hazards. Deficiencies observed in radio equipment appear in Table 19. In 1994 these deficiencies accounted for 0.97% of all deficiencies observed. Major deficiencies recorded in this category were observed in main radio transmission and reception equipment. In some cases the power output of transmitters was observed to be below an acceptable level causing a reduction in the range of transmissions.

Faults observed in receiving equipment included unsatisfactory reception. Typical examples of other deficiencies in this category were deteriorated aerials; broken aerial insulators; improperly rigged aerials for very high frequency equipment; inoperable automatic alarms; defective speakers and faulty emergency power sources.

Radio Most Frequent Deficiencies

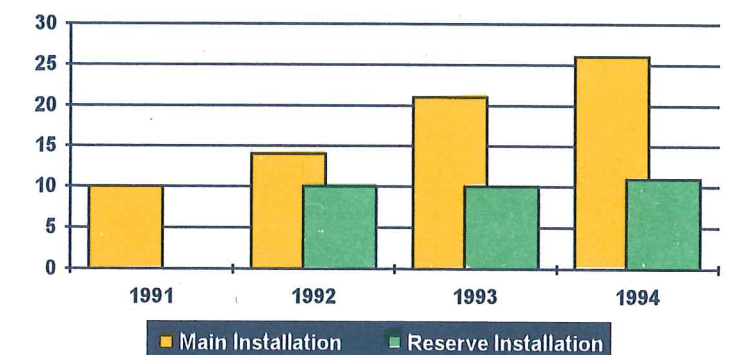


TABLE 19 - RADIO - DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Main Installation	10	14	21	26	0.35	0.20	0.20	0.28
Reserve Installation	-	10	10	13	-	0.14	0.14	0.14
Satellite EPIRB 406 MHz/1.6GHz	-	-	-	5	-	-	-	0.05
Direction Finder	-	5	2	2	-	0.07	0.03	0.02
Auto Alarm	2	5	1	2	0.07	0.07	0.01	0.02
VHF Installation	1	2	-	2	0.03	0.03	-	0.02
Portable Radio Installation	2	1	1	1	0.07	0.01	0.01	0.01
MF Radio Installation	-	-	-	1	-	-	-	0.01
Radiotelegraph Motor lifeboat	1	1	-	-	0.03	0.01	-	-
Radio Log	-	1	-	-	-	0.01	-	-
Other	10	20	22	39	0.35	0.28	0.31	0.42



DEFICIENCIES SPECIFIC TO PETROLEUM TANKERS

A tanker's accommodation area contains equipment which is unsuitable for use in a flammable atmosphere. It is imperative that doors, windows and similar openings to the accommodation are closed when cargo is being loaded or unloaded or associated operations are carried out. Air conditioning or mechanical ventilation systems should be adjusted to prevent entry of flammable gas. Tankers are required to carry portable instruments for measuring oxygen and flammable gas concentrations. Protective clothing and breathing apparatus is required to be provided to protect personnel from the effects of radiant heat and fumes when fighting fires. Deficiencies observed in each of the above areas appear in Table 20. 29 deficiencies were noted or 0.31% of all deficiencies observed.

**Petroleum Tankers
Most Frequent Deficiencies**

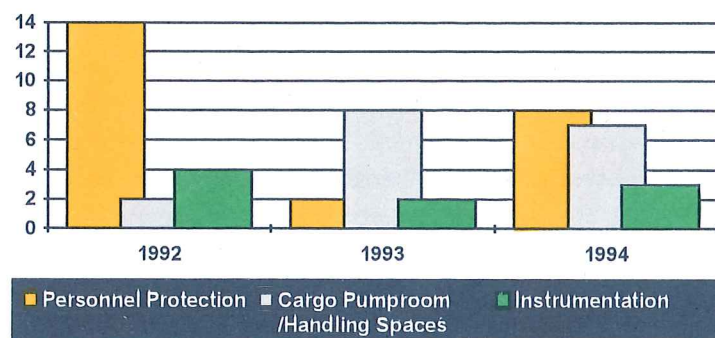


TABLE 20 - DEFICIENCIES SPECIFIC TO PETROLEUM TANKERS

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Personnel Protection	-	14	2	8	-	0.20	0.03	0.09
Cargo Pumproom/Handling Spaces	-	2	8	7	-	0.03	0.11	0.08
Instrumentation	-	4	2	3	-	0.06	0.03	0.03
Fire Protection Deck Area	2	2	-	2	0.07	0.03	-	0.02
Vents-Accomd, Mach & Ctrl Area	1	-	-	2	0.03	-	-	0.02
Special Requirements	-	-	-	2	-	-	-	0.02
Spaces in Cargo Area	-	1	1	-	-	0.01	0.01	-
Cargo Transfer	-	-	1	-	-	-	0.01	-
Cargo Information	-	2	-	-	-	0.03	-	-
Other	-	-	4	5	-	-	0.05	0.05

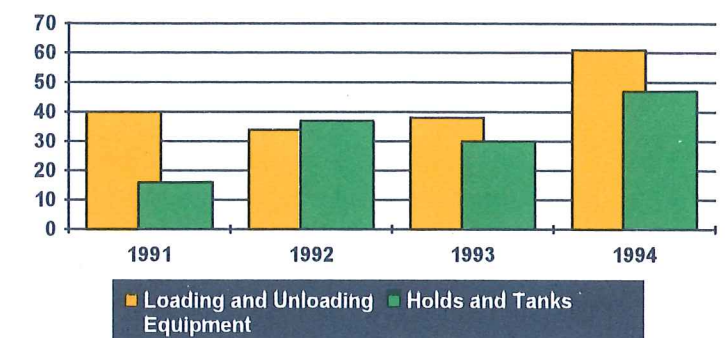


CARGO/CARGO GEAR

Derricks, cranes, winches, wire ropes, chains and similar equipment used in the loading and unloading of ships must be satisfactorily maintained if accidents with potential for serious injury or death are to be avoided. Motion limiting devices and devices to prevent lifting appliances being overloaded must also be properly maintained. Documentation recording the tests, examinations and periodic inspections carried out on cargo lifting appliances to ensure they are maintained in good working order is equally important. Access ladders to cargo spaces must also be well maintained to provide safe access.

It has been noted that approximately one third of deficiencies in this category were observed on equipment used to handle cargo. The deficiencies recorded included absence of identification marks on hooks, blocks, shackles and other small items of equipment; documentation on testing, examinations and testing unavailable; cargo winch bed plates; winch drums and brakes sufficiently corroded to pose a danger to those using the equipment and thus requiring repair.

**Cargo/Cargo Gear
Most Frequent Deficiencies**



Other deficiencies included in this category are ladders giving access to cargo holds or tanks, and hydraulic pipes on cargo winches observed to be badly corroded. Deficiencies in this category accounted for 1.60% of all deficiencies. Inspection results are recorded in Table 21.

TABLE 21- CARGO/CARGO GEAR - DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Loading and Unloading Equipment	40	34	38	61	1.39	0.48	0.53	0.65
Holds and Tanks	16	37	30	47	0.56	0.52	0.42	0.50
Dangerous Goods Code	-	-	-	10	-	-	-	0.11
Stow/Pack Dangerous Goods	-	2	30	3	-	0.03	0.41	0.03
Other Cargo	1	2	3	2	0.03	0.03	0.04	0.02
Grain	1	-	2	2	0.03	-	0.03	0.02
Stowage of Cargo	-	1	-	-	-	0.01	-	-
Liquefied Gasses in Bulk	-	1	-	-	-	0.01	-	-
Other	3	10	34	25	0.10	0.14	0.47	0.27



HABITATION - LIVING & WORKING CONDITIONS

Deficiencies in this category relate to living and working conditions on board ships.

Ships on which the health or safety of the crew is not adequately safeguarded are classified as substandard. A substandard ship is defined by the Navigation Act as:

"A ship is, for the purpose of this Act, substandard if the ship is seaworthy, but conditions on board the ship are clearly hazardous to safety or health".

The inspections are conducted under the provision of Marine Orders, Part 11 (Substandard Ships). These Orders give effect to the spirit of ILO 147 concerning crew accommodation, food, catering, and prevention of occupational accidents.

These inspections form part of the port State control inspection regime and are normally made concurrently with the inspections affecting seaworthiness.



ACCOMMODATION

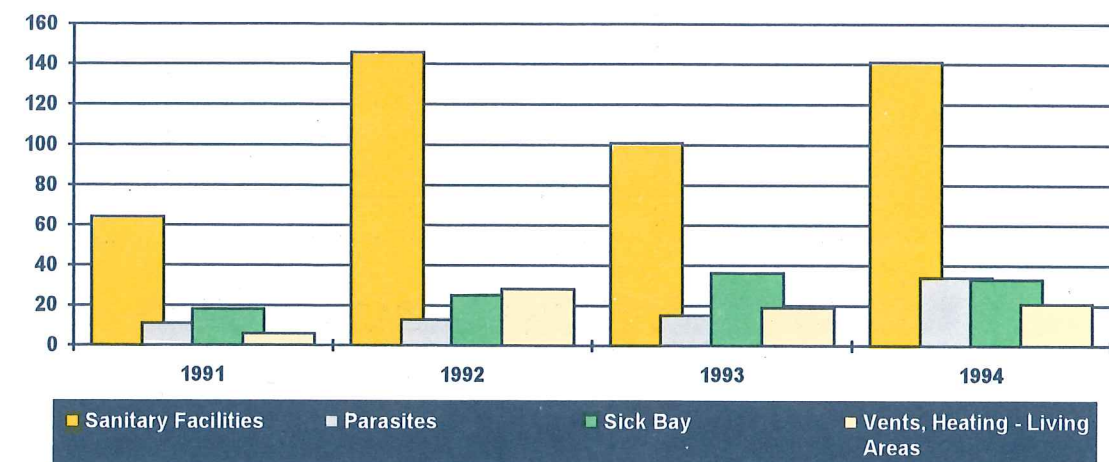
The results of inspections of crew accommodation are recorded in Table 22. They show that most accommodation deficiencies involved sanitary facilities. Examples of deficiencies which are included in the crew accommodation category are: blocked drains; dirty hospitals and bathrooms;

toilet flush water pipes leaking; basins broken; toilet bowls broken; light fittings broken; deck coverings in accommodation and alleyways defective and ship's provisions stored in accommodation spaces.

TABLE 22 - ACCOMMODATION - DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Sanitary Facilities	64	146	101	141	2.23	2.05	1.41	1.49
Parasites	11	13	15	34	0.38	0.18	0.21	0.36
Sick Bay	18	25	36	33	0.63	0.35	0.50	0.35
Vents, Heating - Living Areas	16	28	19	21	0.56	0.39	0.26	0.22
Medical Equipment	1	5	4	13	0.03	0.07	0.05	0.14
Lighting in Living Areas	4	20	11	12	0.14	0.28	0.15	0.13
Drainage	7	5	8	11	0.24	0.07	0.11	0.12
Pipes, Insulation Accom	5	1	1	7	0.17	0.01	0.01	0.07
Other	45	99	82	127	1.56	1.39	1.14	1.35

Accommodation Most Frequent Deficiencies





FOOD AND CATERING

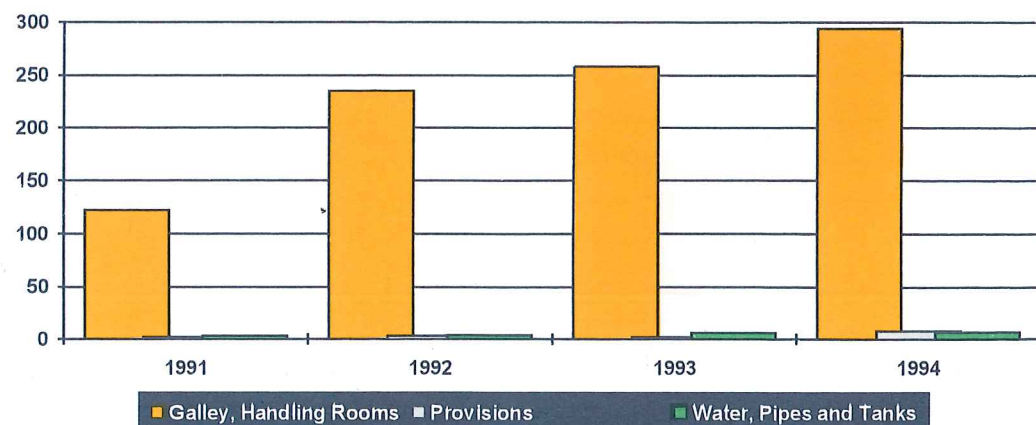
The results of inspections are recorded in Table 23. The majority of deficiencies found in food and catering arrangements related to galleys and food storage handling rooms. This was largely due to poor standards of cleanliness. Other deficiencies included in this category are insulation in galleys sufficiently

deteriorated to pose a potential health hazard; heavy grease deposits in galley exhaust ventilation trunking creating a potential fire hazard; refrigeration machinery for cooling storerooms not working efficiently and insufficient food for the intended voyage.

TABLE 23 - FOOD AND CATERING DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Galley, Handling Rooms	122	235	258	294	4.24	3.30	3.59	3.14
Provisions	2	3	2	8	0.07	0.04	0.03	0.09
Water, Pipes and Tanks	3	4	6	7	0.10	0.06	0.08	0.07
Other	10	20	14	18	0.35	0.28	0.19	0.19

Food and Catering Most Frequent Deficiencies



WORKING SPACES

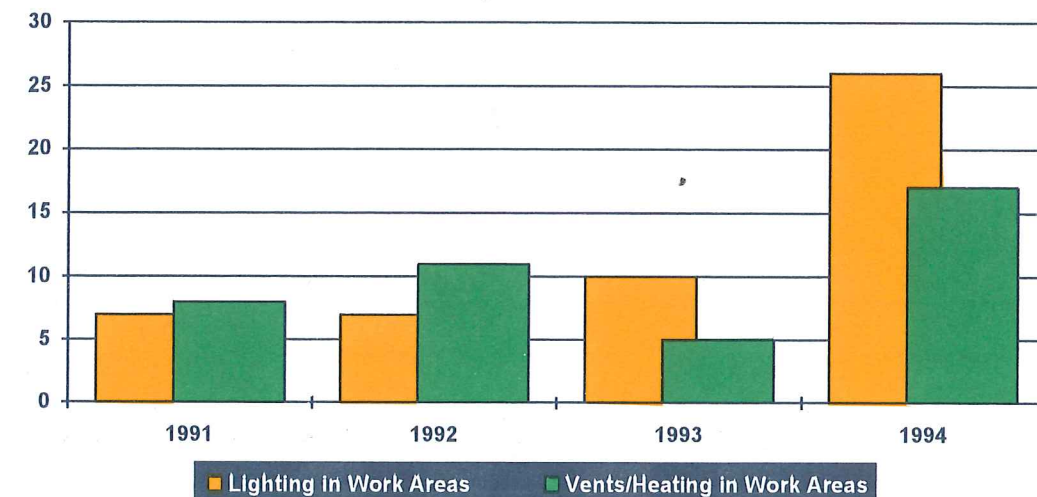
The provision of adequate lighting and ventilation in spaces where people are required to work is essential for a safe working environment. The results of inspections are

recorded in Table 24. 81 deficiencies were noted in this category which account for 0.86% of all deficiencies observed.

TABLE 24 WORKING SPACES - DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Lighting in Work Areas	7	7	10	26	0.24	0.10	0.14	0.28
Vents/Heating in Work Areas	8	11	5	17	0.28	0.15	0.07	0.18
Other	11	6	9	38	0.38	0.08	0.12	0.41

Working Spaces Most Frequent Deficiencies





ACCIDENT PREVENTION

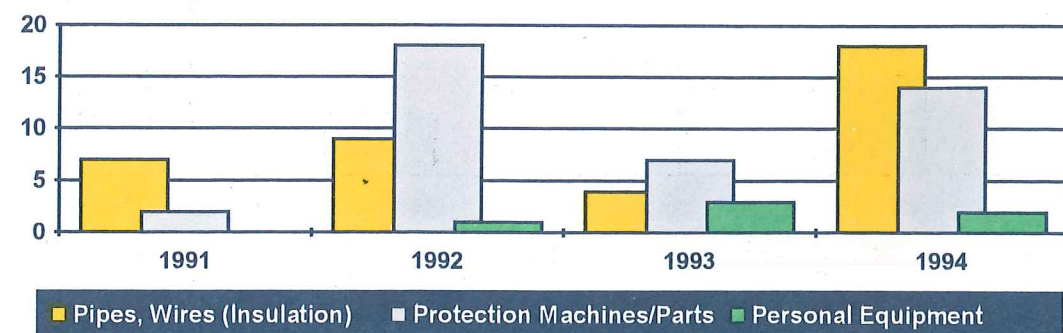
The absence or deterioration of insulation on electrical cables, steam lines, exhaust pipes and other heated surfaces was observed on eighteen occasions. Guards to protect operators from moving parts of machinery were observed to be missing or defective on

14 occasions. In total, there were 62 deficiencies amounting to 0.66% of all deficiencies observed. Inspection results are recorded in Table 25.

TABLE 25 - ACCIDENT PREVENTION - DEFICIENCIES

ITEM	NUMBER OF OCCURANCES				PERCENTAGE OF TOTAL DEFICIENCIES			
	1991	1992	1993	1994	1991	1992	1993	1994
Pipes, Wires (Insulation)	7	9	4	18	0.24	0.13	0.05	0.19
Protection Machines/Parts	2	18	7	14	0.07	0.25	0.10	0.15
Personal Equipment	-	1	3	2	-	0.01	0.04	0.02
Other	4	32	26	28	0.14	0.45	0.36	0.30

**Accident Prevention
Most Frequent Deficiencies**



Concluding Remarks

Ships detained as a result of port State control inspections in 1994 were observed to have deficiencies which seriously impaired their seaworthiness and contravened the requirements of international conventions. It is thus evident that some owners or operators continue to operate ships which do not substantially comply with these conventions. The International Maritime Organization (IMO) has recognised that the problem has two aspects: inadequate ship management by the owner or operator and non-uniform application of convention standards by flag States.

The results of AMSA's port State control inspections demonstrate that there is a distinct need for owners, operators, flag States and classification societies to pay closer attention to the maintenance of ships and their equipment at all times and not just when a scheduled survey is due. Compared with previous years there are no apparent trends developing in the type of deficiencies or the number of ships with deficiencies. However, the majority of deficiencies continue to be with life-saving and fire-fighting appliances, indicating lack of maintenance of items which are not used during normal day to day operations on board.

This emphasises the continued need for the port State to carry out inspections under the existing convention provisions.

Given current economic conditions it is not difficult to predict that the general condition of ships will further deteriorate if port State

control inspections are not carried out by AMSA and other responsible maritime authorities.

Many deficiencies identified on ships not detained were relatively minor. Most defects were speedily rectified during the scheduled stay in port. The majority of ships inspected in 1994 complied substantially with requirements of the relevant conventions. However, many deficiencies observed could have been avoided by proper maintenance. The prime responsibility for ship maintenance lies with the owner or operators of ships. Flag State and organisations appointed by flag States also have responsibilities under international conventions.

AMSA is now giving increased priority to operational control inspections. The level of control inspections has been substantially increased in 1994. While the number of ships calling at Australia has remained fairly constant, the number of ships inspected has increased from 578 in 1990 to 2406 in 1994. Our activities have ensured that fewer ships depart Australia with undetected deficiencies.

This has an immediate benefit for Australia in ensuring the safety of its transport system. In the wider context, everyone benefits, as unseaworthy vessels are identified, detained and relevant information relayed to other bodies with an interest in a safe transport system. This can only assist in achieving the IMO's objectives of safe ships and clean oceans.