

INDEPENDENT STATE OF PAPUA NEW GUINEA

CHAPTER NO. 242

Merchant Shipping (Medical Standards) Regulation

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INDEPENDENT STATE OF PAPUA NEW GUINEA

CHAPTER NO. 242

Merchant Shipping (Medical Standards) Regulation

MADE under the *Merchant Shipping Act*

1. Interpretation

In this Regulation, unless the context otherwise requires:

“**Act**” means the *Merchant Shipping Act* (Chapter No. 242);

“**Authority**” means the National Maritime Safety Authority established by the *National Maritime Safety Authority Act* 2003, which shall be responsible for the administration of the Convention;

“**Government**” means the Government of Papua New Guinea;

“**Convention**” means the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended in 1995, and as subsequently amended from time to time;

“**STCW Code**” means the Seafarers’ Training, Certification and Watchkeeping Code, (STCW Code) including resolution 2 of the 1995 STCW Conference;

“**Owner**” means an owner or operator or bareboat charterer and includes "company" as defined in Regulation I/1 of the Convention.

“**Physician**” means a person who holds a current license to practice medicine issued by the Government under the *Medical Registration Act* (Chapter No. 398), or by a licensing authority recognised by the Government;

“**Designated Physician**” means a physician who is knowledgeable about seafaring and is designated by the Authority or those physicians recognized by the Government for the purpose of conducting medical examinations for seafarers;

“**Seafarer**” means a person who is employed in any capacity on a ship.

“**Ship**” has the same meaning as in the Act.

2. Purpose

This Regulation makes provision for medical standards required for seafarers serving aboard ships registered in Papua New Guinea and for citizens of Papua New Guinea who are employed aboard any ship.

3. Application

(1) This Regulation shall apply to:

- (a) designated physicians responsible for assessing medical fitness;
- (b) persons responsible for the recruitment and employment of seafarers;
- (c) owners and masters of ships registered or licensed in Papua New Guinea;
- (d) seafarers, required by the Merchant Shipping (Training and Certification) Regulation 2006 to hold a certificate, serving aboard a Papua New Guinea ship;
- (e) seafarers, required by the Convention or STCW Code Regulations to hold a certificate, who are citizens of Papua New Guinea serving on any ship;
- (f) those persons required by the Convention and STCW Code to maintain registers and records pertaining to seafarers and their certificates.

(2) The vision and hearing requirements of this Regulation apply to seafarers who are employed in any capacity for which a certificate as master, mate or bridge watchkeeper is required by the Merchant Shipping (Training and Certification) Regulation 2006.

4. Medical Fitness Certificates

- (1) Every person to whom this Regulation applies shall, when serving in a vessel, hold a valid Medical Fitness Certificate if that person:
 - (a) is required to be on board by virtue of the vessel's Safe Crewing Certificate issued by the Authority;
 - (b) has any responsibilities on board relating to emergency procedures;
 - (c) has any watchkeeping responsibilities; or
 - (d) has any duties relating to the normal operation of the vessel.
- (2) A Medical Fitness Certificate shall be valid until the date of expiry stated on it if it is issued by:
 - (a) a designated physician, observing the "Guidance regarding medical standards" recommended in section B-1/9 of the STCW Code, approved for the purpose of issuing Medical Fitness Certificates; or
 - (b) a designated physician approved by the Government for the purpose of issuing Medical Fitness Certificates.
- (3) Subject to section 7, a designated physician shall specify the duration, from the date of the medical examination, for which the certificate is to remain in force.

5. Standards

- (1) The standards of medical fitness for seafarers as required by Regulation I/9 of the Convention are set forth in Schedule I.
- (2) Only designated physicians registered under the *Medical Registration Act* or those medical practitioners recognized by the Government for the purpose of conducting medical examinations for seafarers shall conduct medical examinations and issue Medical Fitness Certificates for seafarers pursuant to the requirements of Regulation I/9 of the Convention.
- (3) A list of designated physicians or medical practitioners so registered or recognised shall be maintained by the Authority and made available to other Parties to the Convention and to owners.
- (4) Persons requiring the use of spectacles or contact lenses to perform their duties should have a spare pair conveniently available aboard ship.
- (5) Eyes of seafarers should be free of disease and any permanent or progressive debilitating pathology without recovery should be the cause for the determination of unfitness.
- (6) Information in respect of medical examinations shall be provided to the Authority for inclusion in the register required to be kept by the Shipping Officer.
- (7) Seafarers submitting to medical examinations shall declare any existing medical precondition or illness that might be a determinate of unfitness for duty.

6. Medical Examination

(1) A physician shall, after completing the medical examination of a seafarer under this Regulation, issue a Medical Fitness Certificate the seafarer in the form approved by the Authority and set forth in Form No. 2.

(2) The physician shall set out in the Medical Fitness Certificate the physician's assessment of the seafarer's suitability as-

- (a) unfit for service at sea;
- (b) fit for service at sea, with limitations; or
- (c) fit for service at sea, without limitations.

(3) A physician who assesses a seafarer as fit for service at sea with limitations shall state those limitations on the seafarer's Medical Fitness Certificate.

7. Duration

(1) Except where a re-examination is required under section 8, and subject to subsections (2) and (3), a Medical Fitness Certificate remains in force beginning on the day of its issuance, and unless a shorter period is required by reason of the specific duties to be performed by the seafarer or is required under STCW:

- (a) a Medical Fitness Certificate shall be valid for a maximum period of:
 - (i) one year for deck watchkeeping officers and ratings;
 - (ii) two years for engineering officers and ratings;
 - (iii) one year for seafarers over the age of 40; and
- (b) a certification of colour vision shall be valid for a maximum period of six years.

(2) Where appropriate, taking into account the state of health of the seafarer examined, a physician may issue a Medical Fitness Certificate that specifies a shorter period of validity than the period set out in subsection (1)

(3) Where the period of validity of a Medical Fitness Certificate expires in the course of a voyage, the certificate remains in force until the end of the voyage, or until the end of an additional period of three months, whichever first occurs.

8. Re-examination

The Authority may at any time require the re-examination of a seafarer -

- (a) where the Authority has reason to believe that a re-examination is desirable in order to protect the safety of the ship or of other persons on board the ship;
- (b) at the request of the seafarer's employer, where the employer has grounds to believe that the seafarer's state of health may constitute a risk to the safety of the ship or of other persons on board the ship; or
- (c) at the request of the seafarer.

9. Review of a Medical Fitness Certificate

(1) A seafarer may apply to the Authority for a review by a reviewing physician of a Medical Fitness Certificate issued under this Part that indicates the seafarer is -

- (a) unfit for service at sea; or
- (b) fit for service at sea with limitations.

(2) The reviewing physician shall be a designated physician.

(3) After reviewing a Medical Fitness Certificate and the state of health of the seafarer to whom it was issued, the reviewing physician may direct that further medical examinations be carried out and may stipulate the examinations and the persons or organizations to carry them out.

(4) The reviewing physician shall -

- (a) confirm the Medical Fitness Certificate originally issued; or
- (b) where appropriate, based on further examinations conducted pursuant to subsection (3), issue a new Medical Fitness Certificate in the form approved by the Authority as set forth in Form No.2.

10. Appeal of a Reviewed Medical Fitness Certificate

(1) A seafarer who requested a review of a Medical Fitness Certificate, may appeal to the Authority for a further review of the case by an appeal board if the Medical Fitness Certificate confirmed or issued by the reviewing physician indicates that the seafarer is -

- (a) unfit for service at sea; or
- (b) fit for service at sea with limitations.

(2) An application for a review by an appeal board shall be accompanied by a review fee of K50.00.

(3) On appeal from a seafarer pursuant to subsection (1), the Authority shall appoint an appeal board composed of at least -

- (a) a representative of the Authority;
- (b) a representative proposed by the employer of the seafarer; and
- (c) a representative proposed by the seafarer.

(4) Every appeal board shall be assisted in its deliberations by a physician selected from the designated physicians list by the representatives referred to in subsection 5.(3).

(5) An appeal board has the same power as a reviewing physician and may -

- (a) confirm the Medical Fitness Certificate issued or confirmed by the reviewing physician; or
- (b) where appropriate, based on its deliberations, issue a new Medical Fitness Certificate.

(6) An appeal board shall record its decision and the reasons for it in writing and send a copy of it to the Authority, to the seafarer and to the employer of the seafarer.

11. Costs of Medical Examinations for Reviews and Appeals

The costs of any medical examination conducted as a result of a review under Regulation 9 or an appeal under Regulation 10 shall be borne by the applicant seafarer.

12. Offences and Penalties

(1) (a) No owner shall employ a person as a seafarer unless the person produces a valid Medical Fitness Certificate issued under this Regulation, attesting to the person's fitness-

- (i) to perform the duties for which the person is to be employed; and
- (ii) to make the voyage to be undertaken by the ship.

- (b) An owner who employs a person whose function on the ship requires a Medical Fitness Certificate without that person having one, commits an offence and shall be liable upon conviction to a fine not exceeding K25,000 or a term of imprisonment not exceeding 3 months, or both.
- (2)
 - (a) No person shall accept employment as a seafarer on board a ship unless the person holds a valid Medical Fitness Certificate issued under this Regulation.
 - (b) A person who accepts employment on a ship in a function which requires a Medical Fitness Certificate without having one, commits an offence and shall be liable upon conviction to a fine not exceeding K1,000 or a term of imprisonment not exceeding 1 month, or both.
- (3) A seafarer who fails to declare an existing medical pre-condition or illness that would otherwise have led to a determination of his unfitness for duty commits an offence and is liable upon conviction to a fine not exceeding K5,000 or in default, a term of imprisonment of not exceeding 1 month.

SCHEDULE I

Medical Standards

- (1) The physician conducting a medical examination under this Regulation shall ensure that the seafarer does not suffer from-
 - (a) an impairment that causes unpredictable loss of consciousness and that cannot be controlled through medication;
 - (b) a disorder that could prevent the seafarer from reacting efficiently, while on watch, in an emergency;
 - (c) a condition that is likely to require emergency medical care and that cannot be controlled through medication;
 - (d) high blood pressure, or high risk of stroke or heart attack;
 - (e) a condition that could endanger others, taking into account the confined living conditions on board ship, such as
 - (i) AIDS or other sexually transmitted disease;
 - (ii) a communicable disease that could affect other seafarers coming into close contact;
 - (f) alcohol or drug addiction that could impair the seafarers ability to carry out his or her duties as and when required;
 - (g) an active psychiatric disorder.
- (2) The physician conducting a medical examination under this Regulation shall ensure that the seafarer has-
 - (a) adequate muscle strength to carry a mass of 22 kg;
 - (b) the physical capacity to wear breathing apparatus and life saving equipment;and
 - (c) adequate vision and hearing and the agility and strength to perform the duties of fire fighting, first-aid administration and ship abandonment in an emergency;
 - (d) a blood test if he suspects the seafarer has been in contact with a HIV positive person.
- (3) The physician conducting a medical examination under this Regulation shall ensure that a seafarer who performs the following duties meets the physical requirements set out in "Seagoing Occupations" of the *Physician's Guide* attached as Schedule II to this Regulation;
 - (a) the duties of deck department personnel set out in clause 1.2 of the Guide;
 - (b) the duties of engineers set out in clause 1.3 of the Guide; or
 - (c) the duties of cooks or stewards set out in clause 1.4 of the Guide.
- (4) A medical examination conducted under this Regulation shall conform to the guidelines and time-period requirements Section 2 of the *Physician's Guide* contained in Schedule II.
- (5) Colour vision standards are those set out in *Physician's Guide*, sections 3.1 and 3.2.
- (6) Notwithstanding the provisions of sub-sections (1) to (5) of this section, every seafarer to which sub-section (1) refers, shall be in good health and shall have:
 - (a) normal blood pressure, or be on maintenance medication to maintain the blood pressure not to exceed 160/100;

- (b) vision of 20/20 or equivalent international vision criteria, correctable to 20/40 for deck applicants and 20/50 for engineer applicants; and
- (c) unaided average threshold of hearing of 70 db or less in each ear for deck applicants, or functional speech discrimination of at least 80% at 55 db binaural, and 40 db or less for engineer applicants, or functional speech discrimination of at least 90% at 55 db binaural. Deck applicants may have aided average of 40db or less or functional speech discrimination of 90% at 55 db binaural.

(7) Waivers may be granted in exceptional conditions for applicants who do not meet these criteria.

SCHEDULE II

Physician's Guide

1. Seagoing Occupations

1.1 General

Seagoing occupations may require an individual to be away from major medical facilities for several months at a time. Few ships carry medical officers; even in those ships that do, treatment resources are minimal. While at sea, ships are frequently more than several hours or days away from medical facilities, which provide more than minimal treatment resources.

On average, at least 40% of the positions on ships involve watchkeeping. The conventional watch system requires the individual to be on duty for 4 hours and off duty for 8 hours, for an 8-hour work day, 7 days a week while the ship is at sea. Sometimes seafarers are required to work six hours on duty and six hours off duty. For the conventional watch system, seafarers could spend eight weeks or more at sea without a day off. Under the six-on/six-off regime, seafarers should not spend more than a month without some time off or a less arduous work regime, as their fitness for duty, efficiency and effectiveness are known to deteriorate after a protracted period of time.

While at sea, seafarers frequently work long hours under uncomfortable weather conditions, rough seas and in comparatively close quarters isolation. Living conditions and meals aboard are generally adequate. There is, however, little privacy on board as the ship's crew members must share cabins and washrooms (two to four to a cabin averaging 3 m by 2.5 m in size). Crew cabins are usually on the lower decks and often have no portholes; therefore, have no natural light or fresh air. The ship's officers generally have private cabins on the upper decks but share washrooms; however, they sometimes are required to share two to a cabin.

Further negative influences include working in isolated areas, reduced space and limited mobility due to the fact that one cannot leave the work site (the ship). Crew must be able to relate easily with fewer people, where interaction and team-work is essential to the safe and successful operation of the vessel. There is frequent separation from family and friends and lack of contact with the outside world. Telephones are generally not available for personal use, except in emergencies.

Boredom, between work periods is a major factor while at sea. There are reduced options for spending one's leisure time in the confines of a vessel. Crew must be self-reliant on making

their own entertainment. Leisure activities consist of cards, games, reading, video films, hobbies, some radio, and, occasionally, television. Some of the larger ships are equipped with gymnasium equipment.

Mental stress results from isolation, boredom, lack of privacy, the constant background noise and vibration, the demands of the work and, in the case of search and rescue incidents or emergency situations, possibly witnessing severe human injury or death. Physical stress frequently results from maintaining balance in an environment where the platform is constantly rolling, frequently violently (in excess of 12 degrees port and starboard), pitching and pounding in high seas and bad weather and from the actual physical demands required of working at sea.

Seagoing personnel are exposed to a variety of hazards, including contact with chemicals, vapour fumes, harsh environmental conditions, noise, machinery and electricity; being struck by objects suspended overhead (e.g. cargo pallets, swinging hooks); combating emergency situations such as retrieving objects which have broken loose from their lashings, fire on board, damage control, and abandoning ship.

Good balance and agility are required in order to safely carry out duties on wet, slippery and moving platforms, to climb inclined gangways, steep or vertical ladders, to negotiate door sills up to 70 cm in height and to enter small enclosed spaces so as to prevent injury, and to avoid falling or being washed overboard.

Deck, engine room officers and crew, cooks and stewards need to be able-bodied, agile and of a sturdy physique. Therefore, there should be no physical disability which could unduly limit mobility, speed of movement or physical effort to climb through small hatches, up/down gangways, steep stairs and vertical ladders, while carrying heavy tools, equipment, and/or provisions, and to climb the ship's mast (up to 9 metres above the ship's deck) for maintenance.

All crew members must also be capable of participating in emergency countermeasures and drill activities, such as fire fighting, damage control and launching and handling of lifeboats and liferafts. These tasks could include handling fire hoses having a high water pressure during fire fighting, while wearing protective fire suits and respiration equipment. The duties also include performing first aid, CPR or carrying injured persons to safety on a stretcher, around obstructions, through smoke-filled areas, up vertical ladders, through escape hatches, to transfer the casualty. It could also mean abandoning ship in a lifeboat/raft or by jumping from a 12-metre moving platform into cold seawater, wearing lifesaving equipment, then swimming to a lifeboat/raft and climbing into it. Emergencies frequently occur in adverse weather conditions and rough seas where being able to lift injured people from the water could mean the difference between saving or losing a life.

Deck crew stand for long hours during "watch" duties and are required to visually detect objects and colours close up or up to a distance of six miles; e.g. navigation lights at night and in various weather conditions such as extreme wind, cold, fog, spray, heavy seas, rain, glaring sun, etc. They must also be able to hear fog signals from whistles or bells up to a distance of two miles. They must be able to communicate verbally and hear with reasonable facility in all the above conditions, which may include background noises from machinery and radio interference, in order to carry out instructions quickly.

Engine room crew are frequently exposed to very uncomfortable heat, high humidity levels, obnoxious odours and airborne contaminants, occasionally requiring the use of breathing apparatus. High noise levels (up to 160 db) are normal requiring the use of hearing protection. Engine room and machinery spaces are often cramped and confined and have no natural lighting. The work includes inspection of the ship's tanks by descending into such tanks by way of crawling through an opening of approximately .7 m x .5 m into a confined space having no natural ventilation or light. These tanks can be wet and slippery with high levels of hydrogen sulphide and hydrocarbon gasses, with little or no oxygen, requiring breathing apparatus to be worn and lights to be carried.

Cooks and stewards have peak periods of high energy activities. One such activity is re-supplying the ship, which involves an extreme amount of lifting and carrying when loading provisions, supplies, material, and equipment weighing up to 45 kg. These are carried onto the ship by way of the gangway, or lifted onto the deck or into a cargo hold by crane. Finally, they are manually taken to various locations throughout the ship. Provisioning the ship can take from several hours to several days. Although cooks and stewards normally work inside, they can be exposed to extreme cold and bad weather during re-supply periods.

Cooks and stewards work near hot ovens and stoves, hot grease, boiling water. They work with electrical equipment, sharp tools and rotating blades. They provide cooking and waiter services for three daily meals and perform the associated cleanup duties. In addition, they carry out daily cleaning duties of the messes, lounges, galley, passageways, stairways, laundry rooms, storerooms, officers' cabins and washrooms. Cooks and stewards inspect material, provisions and supplies upon receipt, during stock rotation and inventory review. These duties, as with all others on the ship, are carried out during all types of weather conditions. When the ship is rolling, the physical effort required to deal with every task is increased substantially.

All crew members are responsible for marine emergency duties. Everyone must be able to hear and recognize the different emergency alarms and react quickly. Emergency situations almost always occur during adverse weather conditions, at which time the forced ventilation is switched off and the lighting is reduced to emergency levels.

Emergency duty exercises for crew members are held during the training courses leading to qualification and during the drills, which are held periodically on board ship. Persons requiring aids are at increased risk of breaking or losing them during an emergency situation. They should therefore be medically fit to the extent that they can function effectively and safely without these aids.

A ship is not a normal work site. The crew are their own fire department, first aid attendants and lifeboat party. There is nowhere to escape in the event of a fire or other emergency. Quick and decisive emergency countermeasure procedures are the best way to avert a marine disaster. The entire ship's company is a team, which must rely on one another for survival. The size of ships' crews is steadily decreasing; therefore, the medical and physical fitness levels of each crew member must be of a high enough standard to compensate for the reduced numbers during emergencies. It occasionally happens that crew members are injured, thereby reducing the number of persons available to participate in emergency duties. This results in other individuals having to increase their physical responses to accomplish the outstanding tasks.

1.2 Physical Demands of Seagoing Occupations - Deck Department Personnel

(a) Vision:

- (i)** Excellent near and distant vision is required.
- (ii)** Must be capable of:
 - plotting courses accurately and recognising minuscule chart symbols;
 - using radar and other instruments accurately in low light conditions;
 - taking bearings on distant objects to an accuracy of half a degree;
 - detecting coloured signal lights at minimum ranges;
 - identifying objects at a distance in varying weather conditions and visibility;
 - adjusting quickly to day/night vision;
 - seeing objects in the normal periphery to avoid dangers from objects overhead and to the side; and
 - having normal depth perception to avoid dangers and in order to perform tasks such as throwing lines, judging the distance and closing speed between the wharf and the ship when coming alongside.

(b) Hearing:

Must be able to hear voice communication (speaking, shouting) and voice and tone signals over radio and telephone. Must be able to recognize bells, whistles sirens and alarms. Must accurately distinguish and identify sounds and the direction from which they're coming (frequently simultaneous and from unexpected locations), despite high background noise levels.

(c) Colour Vision: Standard 2 (See Sections 3.1 and 3.2.)

Must have sufficient colour vision to distinguish between white, red, green, and yellow navigation lights in accordance with the International Collision Regulations, and be able to distinguish various shades of the above, e.g. to identify the colour of an unlit buoy in the distance at dusk.

(d) Neuromuscular:

Must have normal agility, strength and the ability to maintain balance in difficult circumstances as described in 1.1 above. Must be able to cope with the ship's movements, which are frequently violent in rough weather. Must be able to negotiate slippery decks, inclined gangways, steep or vertical ladders, sills up to 70 cm in height; to climb rope ladders on a rolling ship in-heavy seas and to crawl through small enclosed spaces and escape hatches. Officers and crew should have no physical disability which would unduly limit mobility, speed of movement or physical strength.

Crew members must have adequate muscle strength to permit the heavy physical work required during the normal performance of the job, including frequent heavy lifting.

Must be able to remain standing for six hours at a time and frequently longer during search and rescue tasking and operations in sea ice. Commanding Officers must be able to remain standing for up to 24 hours during search and rescue activities.

(e) Watch System:

Normal hours of work are 4 on and 8 off or 6 on and 6 off. Watch personnel must be able to remain standing for 6 hours at a time.

1.3 Physical Demands of Seagoing Occupations - Engineer

(a) Vision:

- (i) Must be able to read coloured, digital, analogue and level gauges and dials at varying distances.
- (ii) Good vision, quick and accurate perception is required to detect fluid leaks, loose parts, engine malfunctions, fire, etc. in locations where lighting may be poor.
- (iii) Must have normal peripheral vision to avoid dangers from objects overhead and to the side, such as low hanging pipes, frames, projections, machinery, etc.
- (iv) Must have normal depth perception in order to perform maintenance tasks where moving/rotating tools and hot machinery may be hazardous.

(b) Hearing:

- (i) Must accurately understand voice communication (speaking and shouting) by radio and telephone, despite constant high background noise levels. Good hearing is required in order to detect and recognize normal/abnormal variations in machinery sounds. Good hearing is required to recognize and distinguish warnings, such as general alarm, fire alarm, fire extinguishing (CO₂, halon) flooding alarms, water-tight door closure alarm, engine room control panel alarms and telephone ring.
- (ii) Employees' hearing can be damaged when working near noisy machinery (160 db). Ear protection is usually worn in these areas.

(c) Colour Vision: Standard 2 (See sections 3.1 and 3.2.)

- (i) Must have sufficient colour vision to distinguish between red, yellow, green and white.
- (ii) Engine room control panel indicator lights are colour-coded to indicate the operating mode of machinery and any caution or emergency condition. Engine room personnel are required to work with tiny number-coded or colour-coded wires for matching purposes.

(d) Neuromuscular:

- (i) Must have good agility, strength, co-ordination and the ability to maintain balance. Must be able to hold on and still work when, in rough weather, the ship is constantly moving and frequently rolling violently.
- (ii) Good agility and endurance are required to negotiate the frequent changes from one level of the ship to another, often by having to use steep or vertical ladders. Some emergency escape routes involve climbing up vertical ladders through comparatively small exits. Must have adequate muscle strength to permit the heavy physical work and lifting (from about 10 kg to 25 kg), which will frequently be encountered during repairs or refit.

(e) Watch System:

Normal hours of work are 4 on and 8 off or 6 on and 6 off. Must be able to remain standing for at least 6 hours at a time.

1.4 Physical Demands of Seagoing Occupations - Cooks and Stewards

(a) Vision:

- (i) Must have normal vision to perform cooking, cleaning, and waiter duties.
- (ii) Near and intermediate vision is required to inspect for cleanliness, quality of provisions and work performed, etc.
- (iii) Must have normal vision to carry heavy loads throughout the ship, (up steep gangways, stairways or vertical ladders, over sills up to 70 cm in height, etc.)
- (iv) Good peripheral vision is required to avoid dangers from objects overhead and to the side, such as freight, crane hooks, door frames, latches, etc., to work in the galley, and avoid possible dangers such as from items being carried, burning grease, boiling water, etc.
- (v) Normal depth perception is required to avoid dangers associated with performing tasks requiring the use of sharp knives and rotating blades of meat slicers, hot ovens, stoves, etc.

(b) Hearing:

- (i) Must be able to understand voice communication in person and over the telephone.
- (ii) Must distinguish between fire alarm, general alarm, cooking and washing signals, etc.

(c) Neuromuscular:

- (i) Must have good agility and strength and the ability to maintain balance while working, in rough weather when the ship's movements are frequently violent.
- (ii) Must have adequate muscle strength to permit the heavy physical work, lifting and carrying (from about 22 kg to 45 kg) required when loading the ship with material, provisions, spares and other supplies.

(d) Hours of Work:

- (i) These employees work during the day; however, the 8 or 12-hour days are spread over 12-15 hours.
- (ii) All employees on board ship are responsible for performing marine emergency duties, (fire fighting, first aid, ship abandonment). Therefore, good vision, hearing, agility and strength are required.
- (iii) Must have the physical capability to wear breathing apparatus and safety/lifesaving equipment.

2. Examinations Guidelines

EXAMINATION	PRE-PLCAEMENT	PERIODIC
Medical Examination	Yes	Yes, every 3 years: every 2 years after 40
Chest X-Ray	Yes	If clinically indicated
Electrocardiogram	If clinically indicated, at the physician's discretion	If clinically indicated, at the physician's discretion
Dental Examination	Assessment of dental history by physician	Assessment of dental history by physician
Urinalysis	Yes	Yes, if clinically indicated
Colour Vision	Standard 2	Standard 2
Visual Acuity and Fields of Vision	Yes ¹	Yes ¹
Audiogram	Standard 1	Deck Personnel standard 1 Engine personnel, stand. 2

(a) Uncorrected vision at least 6/60 in each eye.

(b) Corrected vision at least 6/15 in each eye

3. Standards for Colour Vision

3.1 Test Plate Scores

The use of colour test plates provides the most ready means of determining the ability to perceive colours accurately. The following plate tests and scores are to be used.

TYPES OF PLATES (Pseudoisochromatic)	EDITION	PLATES TO BE READ	MAXIMUM NUMBER OF ERRORS ALLOWED
American Optical	18 plates	1-18 inclusive	3
Ishihara	16 plates	1-8 inclusive	1
Ishihara	24 plates	1-15 inclusive	2
Ishihara	36	1-21 inclusive	3
American Optical HRR	20 plates (2nd.ed.)	1-6 inclusive	0

3.2 Standards

Standard 1 Test passed with no more than the minimum errors shown above.

Standard 2 Where a person fails the Ishihara plate test that person may still meet Standard 2 on passing a practical job-related colour perception test, such as (a) or (b) below.

Deck Department - a colour lantern test;

Engine Department - white, green, red, blue, and amber test patches.

4. Standards for Hearing

Standard 1 Conversationally adequate in both ears with no greater than 40db loss at 500-3000 Hz. Hearing aids are not acceptable.

Standard 2 Conversationally adequate in both ears with not greater than 40 db loss at 500-3000 Hz. Hearing aid allowed in one ear only.

TABLE B-I/9 - Minimum in-service eyesight standards

STCW Regulation	Category of seafarer	Distance vision*		Near/immediate Vision	Visual fields	Night blindness	Diplopia (double vision)
		One eye	Other eye	Both eyes together			
I/11 II/1 II/2 II/3 II/4	Masters, deck officers and ratings required to undertake look-out duties Aided: Unaided:	0.5# 0.1	0.5 0.1	Vision required for ships' navigation (e.g. chart and nautical publication reference use of bridge instruments and equipment, and identification of aids to navigation)	Normal visual fields	Vision required to perform all Necessary functions in darkness without compromise	No significant condition evident
I/11 III/ 1 III/2 III/3 III/4	All engineer officers and ratings forming part of an engineroom watch Aided: Unaided:	0.4 0.1	0.4 0.1	Vision required to read instruments in close proximity, to operate equipment, and to identify systems/components as necessary	Sufficient visual fields	Vision required to perform all necessary functions in darkness without compromise	No significant condition evident
I/11 IV/2	Radio officers and electrical/ Electronic officers Aided: Unaided:	0.4 0.1	0.4 0.1	Vision required to read instruments in close proximity, to operate equipment, and to identify systems/components as necessary	Sufficient visual fields	Vision required to perform all necessary functions in darkness without compromise	No significant condition evident

*Note: Values given in Snellen decimal notation.

#Note: A value of at least 0.7 in one eye is recommended to reduce the risk of undetected underlying eye disease.

Form No. 1 - SEAFARERS MEDICAL FITNESS EXAMINATION REPORT

To be completed by the applicant

Surname:	First Name: Male <input type="checkbox"/> Female <input type="checkbox"/>
Date /Place of Birth:	Rank/Grading:
Present Occupation:	Company/Employer:
Home /Contact Address: <i>(street/town/country include phone contact)</i>	

1. Family History

	yes	no
a) Has anyone in your close family or household been treated for tuberculosis (TB) in the past ten years?	<input type="checkbox"/>	<input type="checkbox"/>
b) Do you have a family history of heart disease, arthritis, rheumatism or diabetes?	<input type="checkbox"/>	<input type="checkbox"/>
c) Has anyone in your family ever been treated for mental illness or 'nervous' conditions?	<input type="checkbox"/>	<input type="checkbox"/>

(For physicians use only)
Please provide further information if the answer to any of the above questions is yes

.....

.....

.....

2. Personal History

Have you ever suffered from:	yes	no
a) tuberculosis, spitting of blood or severe chest infection?	<input type="checkbox"/>	<input type="checkbox"/>
b) conditions of the heart or lungs, including breathlessness, palpitation and high blood pressure?	<input type="checkbox"/>	<input type="checkbox"/>
c) infection of the bladder, kidneys or urinary tract, including sexually transmitted infection?	<input type="checkbox"/>	<input type="checkbox"/>
d) any condition of the stomach, liver or bowels, including hepatitis or stomach ulcer?	<input type="checkbox"/>	<input type="checkbox"/>
e) convulsions, fits, epilepsy or severe migraine headaches?	<input type="checkbox"/>	<input type="checkbox"/>
f) skin complaints, including skin cancers which have required medical treatment?	<input type="checkbox"/>	<input type="checkbox"/>
g) malaria or leprosy - still suffer repetitive effects from it? - still taking medication?	<input type="checkbox"/>	<input type="checkbox"/>
h) diabetes, rheumatism, arthritis, hernia, stroke or cancer?	<input type="checkbox"/>	<input type="checkbox"/>
i) any major accidents or recent (in past ten years) surgical treatment?	<input type="checkbox"/>	<input type="checkbox"/>

3. General

a) Do you wear glasses or corrective (contact) lenses?	Yes	no
b) If yes, do you wear glasses for: <i>(circle one)</i>reading.....all the time		
c) When did you last have a chest X- ray <i>(year)</i>		
d) When did you last consult your doctor for an illness? <i>(month and year)</i>		

Examining Medical Practitioner's Report

1. Physical Examination

Candidate's general appearance: (<i>comment on visible signs of ill health and/ or disability</i>)		
.....		
.....		
Height.....	Weight.....	
Blood Pressure.....	Pulse rate.....	
Urinalysis.....		
	yes	no
a) Is there any evidence of heart and/or lung disease ?	<input type="checkbox"/>	<input type="checkbox"/>
b) Is a chest X Ray required? (<i>consider history as well as examination results</i>)	<input type="checkbox"/>	<input type="checkbox"/>
c) Is there any evidence of past or recent ear, nose and/or throat infections	<input type="checkbox"/>	<input type="checkbox"/>
defect in sight or hearing? (<i>surgery tests essential</i>)	<input type="checkbox"/>	<input type="checkbox"/>
enlarged glands, varicose veins, skin lesions	<input type="checkbox"/>	<input type="checkbox"/>
disease of the uro-genital organs and tract	<input type="checkbox"/>	<input type="checkbox"/>
disease of the brain, spinal cord or nervous system	<input type="checkbox"/>	<input type="checkbox"/>
d) Does the applicant take any regular medication?	<input type="checkbox"/>	<input type="checkbox"/>
Name of medication and reason for taking?		
.....		
Other comments.....		
.....		

2. Psychological Assessment

	yes	no
a) Does the applicant drink alcohol	<input type="checkbox"/>	<input type="checkbox"/>
b) In your opinion, is the applicant a mild, moderate or heavy drinker?	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the patient have a history of, or is currently using drugs?		
d) Is the applicant aware of the possible health risks associated with having unprotected sexual encounters whilst employed as a seafarer?	<input type="checkbox"/>	<input type="checkbox"/>
e) Is the applicant aware of the protective effects of condoms against possible health risks?	<input type="checkbox"/>	<input type="checkbox"/>
f) In your opinion, is the applicant a mature, responsible person who will manage employment as a seafarer?	<input type="checkbox"/>	<input type="checkbox"/>
Comments:.....		
.....		
.....		
.....		

Examining Medical Practitioner's Recommendations

The examining doctor is requested to inform the candidate whether acceptance, deferment, or rejection is recommended. <i>(Delete where inapplicable)</i>	
Fit for contract service for.....years	Fit for permanent service
Fit for International sea service in the capacity listed OR any other capacity	
Home-trade service in the capacity listed	
Deferred for.....months	Rejected

Results of Chest X Ray

..... What further tests/investigations need to be undertaken for the candidate to be considered eligible? Other comments

Signatures

Examining Practitioner.....	Applicant:.....
Print Name:.....	Print Name:.....
Date:.....	Date:.....
Employment:	
Approved <input type="checkbox"/>	Not approved <input type="checkbox"/>

Medical Practitioners
Name:.....
Address:.....
Provider/Registration number:.....
Telephone #:.....
Fax #:.....

Form No. 2 - SEAFARERS MEDICAL FITNESS CERTIFICATE

This is to certify that.....
has been examined in accordance with the *Physician's Guide to STCW-95*, published by the Secretariat of the Pacific Community, the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended in 1995 and the SHIPPING (STCW CONVENTION) REGULATIONS 2000 and has been found fit for seagoing service in:

Management / Operational / Support level for.....years.

(Delete where inapplicable)

OR

Has been found unfit for seagoing service.

Other Comments:

.....
.....
.....
.....
.....

Examining Practitioner's

Name:.....

Address:.....

.....

Medical Practitioner's Licence

number:.....

Telephone #: Fax #:.....E-

Mail:.....

Issued in:on.....Certificate

No:.....

Examining Practitioner's signature..... *(Stamp)*