

Schedule -VII

[See rule 7(ix)]

Medical standards for medical examination of Person

1. **Pre-sea/Periodical Medical Examination-** The person shall undergo the following physical clinical examination before obtaining medical certificate from the medical examiner:-

1.1. **Physical Examination:** which may inter-alia include examination of organ or organ systems with available applicable tools/equipment with medical facility of the approved medical examiner such as;

1.1.1 **Anatomy-** Head, eyes, ears, nose, mouth, throat, neck, chest, abdomen, skin and limbs;

1.1.2 **Vital signs** - Blood pressure, pulse rate and body temperature;

1.1.3 **Vital Systems-** Respiratory, cardiovascular/circulatory, endocrine, nervous/sense organs, digestive, gastrointestinal, musculoskeletal and genitourinary;

1.1.4 **Other Observations-** Infectious (HIV/AIDS)/DNA if requested by the applicant and Parasitic Diseases, Allergy, Malignant Neoplasm, Immunity disorders, diseases of blood and forming organs, mental disorders, oral health, pregnancy and skin;

1.1.5 **General appearance-** Posture, expression, restlessness, speech (impairment), behavior and sweating tendency of the body including weight and height.

1.2 **Prescribed physical fitness Standards** - The medical examiner shall be guided by the following standards -

1.2.1- For New Entrant and the person desiring to join a particular department for the first time, the minimum requirements shall be as follows:-

1.2.1.1 Height 157 cms (5'2");

1.2.1.2 Weight 48 kgs (105lbs);

(i) Provided that weight shall be proportionate to height and in conformance to the best practices in the medical field and 10% reduction may be acceptable by the Competent Authority on merit of the case; and

1.2.1.3- Chest-minimum 74cm (29") with expansion range of 5cm (2");

- 1.2.1.4- Age – minimum age shall be 18 years;
- 1.2.1.5-Skin- There shall be no evidence of acute or chronic skin disease or chronic ulceration;
- 1.2.1.6- Speech- speech shall be without impediment or loss of speech is not acceptable;
- 1.2.1.7- Alimentary system- shall have number of natural teeth (in healthy state) for mastication; spleen shall not be enlarged, liver not tender, no oral sepsis, no hernia;
- 1.2.1.8- Cardio Vascular System- There shall be no sign of any cardio vascular disease. Blood pressure shall not exceed 85 diastolic and 140 systolic, cases of low blood pressure (i.e systolic below 100) shall be rejected;
- 1.2.1.9- Respiratory System- There shall be no deformity of chest which may cause impediment to breathing. The person shall be free from all diseases of respiratory system;
- 1.2.1.10- Genitor Urinary – There shall be no evidence of genitor urinary disease or any abnormality;
- 1.2.1.11-Skeletal System- The functions of all limbs shall be within normal limits and there shall be no evidence of serious deformity of the spinal column of the extremities;
- 1.2.1.12- Nervous System- There shall be no evidence of any disease of nervous system or of any mental disease;
- 1.2.1.13-Glandular system- There shall be no evidence of tuberculosis or other disease of the glandular system including the endocrine glands

1.2.2- For the person joining ship subsequent to the first entry ,the standards of physical fitness for examination shall be as follows;

- 1.2.2.1- Chest-minimum 74cm (29") with expansion range of 5cm (2");
- 1.2.2.2- Age – maximum age of retirement shall be 60 years above this age necessary requirements of the flag administration shall be followed; (case to case basis extendable subject to medical fitness)
- 1.2.2.3-Skin- cases of acute skin diseases, chronic active skin disease and chronic ulceration should be declared "temporarily unfit". Cases of non-infectious and non active skin diseases should be considered;

1.2.2.4- Speech- In case of gross impediment to speech, caused as a result of some disease, the person should be declared temporarily unfit. Minor defects in speech not effecting his efficiency may be considered;

1.2.2.5- Alimentary system- should have number of natural teeth (in healthy state) for mastication; spleen should not be enlarged and no evidence of tenderness be present, liver may be palpable, but no evidence of tenderness be present, no evidence of gross oral sepsis be present, should not be suffering from diabetes;

1.2.2.6- Cardio Vascular System- There should be no sign of gross arteriosclerosis and evidence of enlargement of heart or chronic heart disease. The blood pressure should be as follows-Systolic in principle 100 plus age, 150 up to 35 years and 170 for above 35 years of age. Maximum diastolic should be 100;

1.2.2.7- Respiratory System- There shall be no deformity of chest which may cause impediment to breathing. The person shall be free from all diseases of respiratory system. In the event of any such disease the person should declared temporarily unfit;

1.2.2.8- Genitor Urinary - There shall be no evidence of genitor urinary disease or any abnormality In the event of any such disease the person should declared temporarily unfit;

1.2.2.9-Skeletal System- The functions of all limbs shall be within normal limits and there shall be no evidence of serious deformity of the spinal column of the extremities;

1.2.2.10- Nervous System- There shall be no evidence of any disease of nervous system or of any mental disease In the event of any such disease the person should declared temporarily unfit;

1.2.2.11-Glandular system- There shall be no evidence of tuberculosis or other disease of the glandular system including the endocrine glands.

Notwithstanding anything contained in these rules, Competent Authority may relax requirements of standards if the person concerned is considered physically fit to perform his assigned functions ashore or on ship and is constitutionally fit with no physical defects.

1.3- Mandatory Clinical Tests

1.3.1 Minimum clinical tests to include pulse rate and blood pressure and the following:-

- 1.3.1.1- Complete Blood Count (Hb, TWBC, ESR);
- 1.3.1.2- Routine Urine (Albumin, Sugar and microscopic);
- 1.3.1.3- Blood Sugar;
- 1.3.1.4- Eudiometry;
- 1.3.1.5- Vision Test (Distant, Near, Color);
- 1.3.1.6- Chest X-ray (Large Plate);
- 1.3.1.7- Electrocardiogram (ECG); and
- 1.3.1.8- Pregnancy tests for female person if applicable

1.4 **Vision Standards for Pre-sea Medical Examination-** There shall be no evidence of any morbid condition of either eye or of the lids of either eye which may be liable to risk of aggravation or recurrence. The persons under this category shall fulfill following standards-

1.4.1- Deck Department personnel's performing Navigation, Cargo, Ship, Operations and emergency functions including Officers Trainees/Apprentice, Deck and General Purpose (GP) Rating and others discharging such functions in this Department shall maintain:

1.4.1.1 Distance form vision (unaided 1.0 *(6/6) in better eye and 0.67*(6/9) in other eye; and

1.4.1.2 Normal color vision shall be tested by Ishihara test chart.

1.4.2- Engine Department Personnel's performing marine engineering, electrical, electronic, control engineering and maintenance and repair including Officers Trainees/Apprentice ,GP Rating in the capacity of Engine Room Rating and others discharging such functions in this Department shall maintain:

1.4.2.1 Distance form vision (unaided 0.5 *(6/12) in each eye or 0.67*(6/9) in better eye and 0.33 *(6/18) in other eye; and

1.4.2.2 Normal color vision shall be tested by Ishihara test chart.

1.4.2.3 Catering/Hospitality Department personnel's performing cooking and husbandry functions including Officers Trainees/Apprentices, GP ratings in the capacity of saloon ratings and others discharging such functions in this Department shall maintain:

1.4.3.1 Distance form vision (unaided 0.33 *(6/18) in each eye or 0.5*(6/12) in better eye and 0.25*(6/24) in other eye; and

1.4.3.2 Normal color vision shall be tested by Ishihara test chart.

1.4.4- Radio Officers or Audio officers, Electrical Officer/Electronic Officer and other personnel's performing Radio communication functions including Officers Trainees and others discharging such functions shall maintain:

1.4.4.1 Distance form vision (unaided 0.5 *(6/12) in each eye or 0.67*(6/9) in better eye and 0.33*(6/18) in other eye; and

1.4.4.2 Normal color vision shall be tested by Ishihara test chart.

1.5 Vision Standards for Periodical Medical Examination- As per Appendix A of ILO/IMO/JMS/2011/12 & STCW Code table A-I/9 - Testing of distance vision, near vision, color vision, visual field & limitation to night visions shall be verified;

1.6 General Hearing standards for Pre Sea and Periodical medical Examination
- As per Appendix B of ILO/IMO/JMS/2011/12 - Use of audiometer, standardized tests that measure impairment to speech recognition shall be employed; the following specific standards may be taken into consideration during such examination:

1.6.1- Pre Sea Examination-

1.6.1.1- un aided average threshold at least 30db in the better ear and an average of 40db(unaided) in the less good ear within the frequencies 500, 1000, 2000 and 3000hz(approximately equivalent to speech-hearing distances of 3 meters and 2meters respectively) and/or functional speech discrimination less than 90% at 55db in both ears; and

1.6.1.2- Hearing shall be good in both ears and no sign of supportive disease are present in either of the ears. No hearing aid shall be permitted.

1.6.2-Periodical Examination-

1.6.2.1- un aided average threshold at least 30db in the better ear and an average of 40db(unaided) in the less good ear within the frequencies 500, 1000, 2000 and 3000hz(approximately equivalent to speech-hearing distances of 3 meters and 2meters respectively) and/or functional speech discrimination less than 80% at 55db in both ears;

1.6.2.2- seafarers undertaking deck/bridge duties shall be able to hear whispered speech at a distance of 3 meters and others at a distance of 5 meters on each side;

1.6.2.3- There shall be no sign of supportive disease present in either of the ears and hearing aids shall not be permitted but in exceptional cases with the approval of the competent authority and recommendation of the medical examiner/owner, it may be considered with conditions specified, taking into account the age, operational area of the vessel and position on board the vessel etc.

1.6.3- Other requirements-

1.6.3.1- Hearing examination shall be made by a pure tone audiometer. Other effective assessment method using the validated and standardized tests that measure impairment to speech recognition may also be supplemented if deemed necessary. In addition, speech and whisper testing assessment shall also be used for practical assessment.

1.7 **Physical capability requirements-** As per Appendix C of ILO/IMO/JMS/2011/12 & STCW Code table B-1/9,/ (Table A-1/9-2 physical abilities for seafarers) the functioning of vital system of the human body demonstrates the state of good health of persons and therefore, the medical examiner shall also be guided by the standards specified in para 1.2 above;

1.8 **Testing for the presence of Drug and Alcohol-** As per guiding procedures of ILO-WHO for maritime Industry and should be conducted if the ship-owner or his agent or training institute requests;

1.9 **Application of Tests-** In addition to the minimum tests prescribed in para 1.3, the ship owner or his agent or the training institutes or other entity may conduct tests stated in Appendix A-E of ILO/IMO/JMS/2011/12 at their own cost and risk as per the requirements of relevant contract of employment/ Collective Bargaining Agreement [CBA].

2. Additional medical examination for the person concerned-

2.1 Person on board tankers engaged in the carriage of cargsergenic cargoes namely Benzene (F), Butane, Diesel oil for marine engines as prescribed by the organization (IMO) upon sign off or seafarers arrival in Pakistan

Ports shall undergo medical examination at ship owners cost that may include blood and liver function tests including blood count evaluation.

3. **Vaccination requirements for the person-**

- 3.1. Obligatory vaccination - Seafarers shall be vaccinated according to the requirements indicated in the WHO publication, International Travel & Health; vaccination requirement and health advice updated periodically.
- 3.2. Yellow fever vaccination- This requirement is often strictly enforced for persons arriving from Asia, Africa or South America. The period of validity of the certificate is only valid if it conforms to the WHO model if the vaccine has been approved by the WHO, and if it is administered by an approval Yellow Fever Vaccination Centre. The period of validity of the certificate against yellow fever is 10 years, beginning 10 days after vaccination. If the person is revaccinated before the end of this period, the validated is extended for a further 10 years from the date of the vaccination. If the vaccination is recorded on a new certificate, the person should be advised to retain the old certificate for 10days while the new certificate becomes valid. Responsibility to provide immunization shall rest with either with the ship owner or his agent or training institute others as the case may be;
- 3.3 Non-obligatory voluntary immunization for person-(i) these immunizations are not required according to the International Health Regulations of the WHO. The following immunizations are recommendatory in nature and should be taken at the request of the ship owner or his agent or the training institute or others as the case may be,-
 - 3.3.1 - Viral Hepatitis Type A (infectious hepatitis, epidemic hepatitis)
 - 3.3.2 - Viral Hepatitis Type B (serum hepatitis) with booster at 12 months;
 - 3.3.3 - Tetanus with booster doses is required every 8-10 years; and
 - 3.3.4 - Poliomyelitis with reimmunization, by a booster dose of the oral polio vaccine is recommended every 5 years.