

Annex I

Seafarer Medical Fitness Standards

This annex to Decree No. 2015 - 1575 of 3 December 2015 on the health and medical fitness of seafarers is instrumental in the implementation of:

- The International Labour Organisation's 2006 Maritime Labour Convention;
- The International Labour Organisation's Convention No. 188 on work in fishing
- The International Convention on standards in relation to seafarer training, certification and watchkeeping (and an annex) agreed in London on 7 July 1978, all of the Code relating to seafarer training, certification and watchkeeping, published in Decree No. 84-387 on 11 May 1984, modified in its annex by the amendments adopted in 1995, published in Decree No. 97-754 on 2 July 1997, and the amendments to the annex adopted in Manila on 24 June 2010;
- The amended Council Directive 1999/63/EC of 21 June 1999 concerning the Agreement on the organisation of working time of seafarers concluded by the European Community Shipowners Association (ECSA) and the Federation of Transport Workers' Unions in the European Union (FST);
- Directive 2012/35/EU of the European Parliament and the Council of 21 November 2012 amending Directive 2008/106/EC on the minimum level of training for seafarers.

1. Common medical conditions

To work aboard ships, seafarers and candidates to the profession are subject to the medical fitness standards as defined below.

Generally speaking, being medically fit to seafaring necessitates the functional and morphological integrity of the individual.

A medical contraindication to seafaring leading to a partial or total, temporary or permanent, if not irrevocable, unfitness, includes any physical or psychological health condition and any detectable complaint or disability that is likely:

- To create a risk for the health of a seafarer who is performing his duties away from appropriate medical care because of its pathological characteristics, its potential evolution or its therapeutic requirements;
- To make it impossible for the individual to perform normally his routine and emergency duties on board;
- To be aggravated by the proposed professional activity;
- To put other seafarers or passengers at risk.

These rules may be modified slightly according to the type of navigation and function performed on board.

2. Somatic state

Decreased statural and ponderal growth, depending on its extent and origin, may lead to an individual being found to be temporarily or permanently unfit for seafaring duties; the same for delayed puberty.

Physical incapability characterised by a significant depletion of physical or psychic capabilities shall result in an individual being considered unfit for seafaring.

3. Pathologies of the cranio-spinal axis

The following pathologies are incompatible with seafaring when they have functional repercussions:

- Disabling sequelae following fractures and cranial traumas;
- Significant sequelae following a spinal injury;
- Significant scoliosis and cypho-scoliosis, extreme deformations of the spinal axis.

4. Pathologies of the limbs

Generally speaking, the following pathologies are not compatible with seafaring:

For the upper limbs, injuries which result in a significant alteration of the gripping capabilities of either hand, in particular the tripod pinch or the thumb and forefinger pinch, as well as stiffness or ankylosis of the elbow or shoulder when in an awkward position;

When these diseases occur for a serving seafarer, consideration is given to the possibility of functional compensation, the professional impact of the disability, the duties performed on board and the type of seafaring carried out, with each decision being made on a case by case basis.

For the lower limbs, amputations and, more generally, diseases and injuries which result in significant difficulties standing still or walking;

However, for those who are already employed, an amputation below the upper third of the leg may be deemed compatible with seafaring if the prosthesis is acceptable and the knee is not stiff or unstable;

In principle, hip and knee replacements are not compatible with seafaring. However, for serving seafarers, some prostheses with a satisfactory functional result may be tolerated, depending on the duties performed on board and the type of seafaring carried out.

5. Infectious diseases

Any person suffering from a contagious disease is considered temporarily unfit for seafaring. Seafaring cannot be resumed until the end of the contagious period and after the production of a medical certificate attesting to the person's recovery and non-contagiousness.

In the case of a contagious disease, screening and prophylactic measures may be mandatory for those who have been in contact with the infected individual.

An isolated positive HIV antibody test result does not in itself constitute a cause for being unfit for seafaring.

6. Vaccinations.

Seafarers and training candidates must be up to date with mandatory vaccinations in accordance with the French Public Health Code, and for international travel those defined by International Health Regulations.

Other vaccinations may be offered to seafarers depending on the type of seafaring.

7. Neoplastic diseases

In principle, cancer is not compatible with seafaring.

However, persons who have been treated or are receiving treatment for such a disease may be authorised to work depending on the nature of the disease, any existing injuries and their likely course, the type of seafaring envisaged, the duties performed on board and the psychological impact of a refusal.

8. Blood disorders and diseases of the hematopoietic organs

The following pathologies are not compatible with seafaring:

- Malignant hemopathies;
- Hemophilia and hemophilia syndromes;
- Congenital or acquired hemolytic anemia;
- Purpura depending on its type and form;
- Major polyglobulia;
- Biermer's anemia.

However, the following pathologies may be deemed compatible with seafaring:

- Effectively treated Hodgkin's disease;
- Biermer's anemia when neurological symptoms are not present and is well controlled by treatment;
- Minor forms of thalassemia.

9. Toxicology

Poisoning from industrial substances, depending on its nature, degree and location, may lead to a person being considered temporarily or permanently unfit for service at sea. Each case is subject to a specialised assessment before any decision is made.

10. Endocrine system diseases

Endocrine diseases lead to a person being considered temporarily or permanently unfit for seafaring.

However, following a specialised assessment of each case, certain forms of slight dysendocrinia may be deemed compatible with seafaring depending on its origin, functional impact and therapeutic implications.

11. Metabolic diseases.

Type I diabetes treated by insulin is incompatible with service at sea and entry into the profession.

Persons with complication-free type 2 diabetes which is properly controlled by diet alone or combined with an oral treatment and having a good understanding of the treatment, are subject to a specific decision taking into account the nature of the treatment, the results of biological tests, the type of seafaring in question and the duties performed on board.

Uncontrolled, complicated or progressive diabetes shall result in a person being temporarily or permanently unfit for service at sea. Type 2 diabetes is incompatible with seafaring in open seas.

Upon entry to the profession, these cases are assessed by the French Maritime Medical College (Collège médical maritime).

Significant lipid or uric acid metabolism disorders, even in the absence of an obvious clinical manifestation, may result in a person being temporarily or permanently unfit for seafaring depending on the therapeutic and nutritional constraints. Hyperuricemia complicated by gouty arthritis or renal failure is incompatible with seafaring.

Morbid obesity may be deemed incompatible with seafaring either because of its complications, the need for strict treatment or a person's inability to perform the necessary duties in the event an emergency. Unfitness is temporary or permanent and every decision is made on a case by case basis.

12. Cardiovascular diseases

Generally speaking, congenital heart defects are not compatible with seafaring duties, particularly:

- Cyanotic heart defects, including Ebstein's disease, even if operated ;
- Investigated and confirmed aortic narrowing;
- Unoperated coarctation of the aorta;
- Complex congenital heart disease;
- Pulmonary artery hypertension;
- Large left-right shunts;
- Pulmonary stenosis with a gradient greater than 40 mm; only small type 1 shunts and pulmonary narrowing with a low or moderate gradient are compatible with seafaring.

However, persons suffering from an operated acyanotic heart defect may be deemed fit to seafaring following a specialised assessment of sequelae.

Hemodynamically significant valvular heart diseases and prosthetic valves subject to anticoagulation treatments are not compatible with seafaring. Only mitral valve prolapses without breathing problems or heart rhythm disorders are compatible with service at sea.

However, persons with the following pathologies may be deemed fit to seafaring following a specialised assessment :

- Biological valve prosthesis without anticoagulant or functional problems;
- Certain well-tolerated valvular heart diseases, including prolapses with mitral valve regurgitation.

Heart failure is not compatible with seafaring.

Cardiomyopathy is not compatible with seafaring:

Chronic constrictive pericarditis and effusive pericarditis are incompatible with service at sea. However, operated constrictive pericarditis may be compatible with seafaring, subject to a specialised assessment of sequelae.

However, antecedent acute pericarditis that is cured without sequela, is compatible with seafaring.

Among ischemic heart diseases, all forms of angina, symptomatic coronary insufficiency and sequela of myocardial infarction are incompatible with seafaring.

However, persons with a healed infarction or having had an acute coronary syndrome may be authorised to sail following a specialised assessment, if there is no sequela, no residual angina, no cardiac insufficiency, no heart rhythm disorder and following favourable results from paraclinical tests, including a stress test and the measurement of the ejection fraction of the left ventricle.

The same applies to persons who have undergone coronary artery bypass surgery or coronary angioplasty.

Seemingly isolated heart rhythm disorders are subject to an accurate assessment to eliminate an underlying heart disease.

The following are not compatible with seafaring:

- Sustained ventricular tachycardia;
- Poorly tolerated paroxysmal tachycardia;
- Permanent fibrillation and flutters;
- A third-degree or second-degree (Mobitz 2 type) atrioventricular block;

However, following a specialised assessment, persons with the following may be fit for service at sea:

- Extrasystoles, whatever the origin;
- A pre-excitation syndrome;
- Other heart rhythm disorders and sinoatrial and atrioventricular conduction disorders;
- An implanted cardioverter defibrillators.

This assessment will take into account the type of duties performed and the seafaring in question.

Uncontrolled chronic or paroxysmal hypertension is not compatible with seafaring.

The following disorders of the aorta and peripheral vessels are not compatible with seafaring:

- Aortic and peripheral aneurysms;
- Advanced peripheral artery disease;
- Severe manifestations of post-thrombotic syndrome;
- Extensive or voluminous varicose veins or those accompanied by trophic disorders.

However, following a specialised assessment, persons with stage II (grade I) arterial diseases and arterial diseases that have been operated with good functional results, may be authorised for seafaring.

Among the different types of cardiovascular therapeutics, any anticoagulation treatment is, in principle, not compatible with sailing. However, in exceptional cases and in the absence of remoteness, heavy work and traumatic risk, some individuals may be authorised for seafaring.

13. Pleural, pulmonary and bronchial diseases

Pleural, pulmonary and bronchial disorders when accompanied by acute or chronic respiratory or ventilatory failure, with constant or repeated dyspnea, which prevent a person from performing their routine or emergency duties effectively, are not compatible with seafaring. Decisions are made on a case by case basis following a specialised assessment.

14. Allergy and immune system disorders

Persons with allergy or immunity diseases may be considered unfit for seafaring, temporary or permanently, partially or totally, on a case by case basis regarding of the consequences of these diseases and their origin.

15. Digestive system diseases

Any disease of the digestive system which, because of its pathological characteristics, potential evolution or therapeutic requirements, may put at risk an individual who finds himself beyond the reach of appropriate medical care, is not compatible with seafaring.

In particular, the following are not compatible with seafaring:

- Peptic ulcer esophagitis or esophageal stenosis;
- Gastroduodenal ulcers and their complications;
- Repeated outbreaks of ulcerative colitis;
- Chron's disease;
- Cirrhosis of the liver;
- Portal hypertension; oesophageal varices;
- Hemochromatosis affecting the liver, heart or endocrine glands;
- Cholecystitis;
- Chronic pancreatitis.

However, persons with a gastroduodenal ulcer that has been treated medically or surgically with a favourable result confirmed by fibroscopy, may be authorised to resume or take up seafaring activities.

Similarly, persons who are in remission from asymptomatic or chronic pancreatitis may be authorised to continue seafaring activities.

16. Hernias

Hernias are not compatible with seafaring: After the radical cure and the satisfactory reconstruction of the abdominal wall, seafaring may be resumed.

17. Diseases of the genito-urinary tract

Generally speaking, the following pathologies are not compatible with seafaring:

- Chronic nephropathy;
- Nephrocalcinosis;
- Polycystic kidney disease;
- Ureteropelvic junction obstruction;
- Hydronephrosis;
- Permanent proteinuria;
- Prostatic adenoma affecting the upper tract or having already been complicated by an obstructive episode;
- Enuresis.

However, the following pathologies may be deemed compatible with seafaring:

- Intermittent, transient or orthostatic proteinuria ; unilateral nephrectomy with normal renal function;
- When already working, certain non-transient proteinuria with slight anatomical lesions and when good prognosis ; low-grade hydronephrosis when there is no infection or thinning of the renal cortex ; isolated and asymptomatic renal lithiasis and isolated microscopic hematuria when the etiologic assessment is negative.

18. Obstetric gynaecology

Any gynaecological condition which, because of its pathological characteristics, potential evolution or therapeutic requirements, may put at risk an individual who finds himself beyond the reach of appropriate medical care, is not compatible with seafaring.

Pregnancy is subject to a specialised assessment which takes into account prohibited work in the sense of work regulations, working and living conditions on board, the remoteness imposed by the type of seafaring, professional exposure to infectious, chemical and physical agents, including substances that are mutagenic or toxic for reproduction, and organisational factors, particularly night work.

Pregnant women and mothers during the six months following childbirth and as long as they are breastfeeding shall benefit from additional medical support. Pathological pregnancies are not compatible with seafaring.

19. Neurological disorders

The following are not compatible with seafaring:

- Brain disorders and injuries, meningitis and spinal chord injuries, regardless of their origin ; only acute conditions cured without sequela are compatible with seafaring;
- Paresis or peripheral nerve paralysis that compromise static positions, walking or gripping with the upper limbs. The same applies to neuro-muscular disorders affecting the same or other vital functions;
- Cranial nerves paralysis ; however, an isolated and slight impairment of facial or spinal nerves may be deemed compatible with seafaring;
- Disorders and injuries likely to lead to repeated losses of consciousness, the occurrence of which cannot be totally avoided in all circumstances, regardless of the etiology. However, when occurring during the course of a seafarer's professional life, a single seizure when recognised clinically but in the absence of precise EEG signals, shall be subject to a specialised assessment comprising an observation period of at least six months. Following this assessment, a decision shall be made on a case by case basis, taking into account the type of seafaring and duties performed on board. Confirmed absences, which are in principle incompatible with seafaring, should be considered on a case by case basis;
- Generalised epilepsy;
- Muteness;
- Significant stuttering which prevent applicants for applying for duties involving oral transmission of orders or information to other crew members or passengers.

20. Mental and behavioural disorders, addictions

I. Following psychiatric and behavioural disorders are not compatible with seafaring :

- Dementia;
- Schizophrenia, delusional disorders, psychotic disorders;
- Bipolar and other mood affective disorders;
- Neurotic disorders including anxiety, phobic anxiety disorder, obsessive-compulsive disorder, post-traumatic stress disorder and dissociative disorder;
- Personality disorders;
- Pervasive developmental disorders, mental disabilities;
- Psychiatric and behavioural disorders related to the use of psychoactive substances.

When occurring during the course of a seafarer's professional life, these same psychiatric disorders shall be subject to an expert assessment which takes into account, in particular, the living and

working conditions on board, the work environment adaptation, the type of seafaring and the therapeutic requirements. The seafarers' doctor must obtain all relevant information. Following this assessment, the person's fitness for seafaring may be revised.

II. A biological testing of the use of psychoactive substances is carried out:

- For seafarers during their initial visit;
- For all seafarers offered positions on board requiring a permanent high level of vigilance and in particular, the following safety and security positions:
 - Ship's command, navigational and watchkeeping positions;
 - Security and safety staff;
- When the medical examination reveals signs that could suggest the use of psychoactive substances;
- When seafarers are involved in an incident on board that could suggest the consumption of psychoactive substances and which gives rise to a detailed report by the captain for the attention of the seafarers' doctor.

A positive test is likely to call into question the person's fitness for seafaring and their ability to fulfil a security or safety position on board.

Addiction to a psychoactive substance, including alcohol, and its implications in terms of vigilance and behavioural control are not compatible with seafaring.

21. Medical treatment

Medical treatments are compatible with professional seafaring, subject to the risks associated with their use.

The decision of fitness shall take into account:

- The potential aftereffects of drugs, particularly on vigilance, eyesight and the physical ability to perform the duties safely;
- Possible adverse complications related to their use and their potential to jeopardize the health of seafarers;
- The potential consequences of a sudden withdrawal from the drug;
- The surveillance requirement by the use of certain drugs that cannot be provided on board.

22. Skin

Chronic skin conditions resulting in a significant functional impairment are not compatible with seafaring.

23. Teeth

Fitness for seafaring is dependent on finding a masticatory coefficient equal to or greater than 40% with a minimum of six pairs of healthy or treated antagonists, including two pairs of molars or premolars and two pairs of canines or incisors.

Teeth that have been treated or replaced by a denture and that are in a good condition and allow normal masticatory function are considered to meet the required conditions.

Prior to boarding, carious teeth must be filled or extracted. Wisdom teeth that have been problematic must be extracted.

24. Vision and diseases of the eyes

Seafarers and candidates for the profession must meet the vision and color perception standards as defined in paragraph 26.

Acute or chronic diseases of the eye or its adnexa having or likely to have an impact on the functional value of the eye or which would impose therapeutic constraints that would be impossible to manage in normal seafaring conditions are incompatible with seafaring, whether temporarily or permanently.

Upon entering the seafaring profession:

- Candidates who meet the required visual acuity conditions by using a corrective lens but do not, with this correction, have visual acuity of 10/10 in each eye shall be subject to a specialised assessment in order to determine the nature of the ametropia in question, its etiology and prognosis;
- Monophthalmic individuals or those with a similar functional amblyopia may only perform the functions of doctor, general services officer, seaweed collector, shellfish farmer and sailor on small fishing boats, as long as the remaining or dominant eye presents a visual acuity without correction of at least 5/10 and a normal visual field. They cannot participate in watchkeeping or perform navigational functions.

When currently working and after a review of their case by the Maritime Medical College:

- Seafarers who become monophthalmic may be authorised to continue seafaring after an adaptation period of six months and following the favourable opinion of the specialist, as long as the remaining eye presents a visual acuity without correction of at least 5/10 without visual field impairment, with however the following restrictions; they cannot participate in watchkeeping, claim certification or carry out navigational functions;
- Seafarers who become monophthalmic are not authorised to continue seafaring unless they have received a prosthesis and have experienced a good functional result: the decision as to their fitness is then made on a case specific basis after a specialised assessment of their vision and in the absence of major problems with their visual field.

In all cases, a significant strabismus and severe abnormalities in the visual field result in a person being deemed unfit to perform navigational and watchkeeping positions.

25. Otorhinolaryngology

Seafarers and candidates for the profession must meet the hearing standards as defined in paragraph 26.

Hearing aids are not permitted. For serving seafarers, a case-specific decision as to the person's fitness may be made by the Maritime Medical College, after a specialised assessment for a prosthetic means of correction for staff not exposed to noisy environments, not participating in navigational or watchkeeping functions, not working outside and not exposed to bad weather because of their work.

Temporary or permanent, acute or chronic injuries and disorders affecting the otorhinolaryngological sphere that have or are likely to have an impact on hearing, balance, phonation or even impose therapeutic constraints that are impossible to manage on board given the sailing conditions are also not compatible with seafaring. In particular:

- Chronic suppurative otitis media;
- Cholesteatoma;
- Otosclerosis;
- Labyrinthitis;
- Rhino-laryngologic problems which, because of their intensity, complications or sequela, result in a significant respiratory dysfunction.

When entering the profession, candidates who do not have the auditory acuity required by the standards shall be subject to a specialised assessment in order to determine the nature of the hearing loss, its origin and prognosis.

26. Sensory standards

STANDARDS	VISUAL ACUITY	COLOR PERCEPTION (e)	AUDITORY ACUITY (g)
<p><u>Standards I</u></p> <p>Fitness for all functions, all seafaring.</p>	<p>For entry into and those currently working in the seafaring profession</p> <p>1) Distance vision: 7/10 for the weakest eye;</p> <p>Correction authorised subject to a visual acuity without correction of 1/10 for the weakest eye;</p> <p>2) Satisfactory near vision at level 2 of the Parinaud scale, authorised correction;</p> <p>3) Binocular visual field normal;</p> <p>4) Absence of night blindness;</p> <p>5) Normal sensitivity to contrasts.</p>	<p>SPC 2 (f)</p>	<p>Entry to the seafaring profession</p> <p>In pure tone audiometry, hearing for the worst ear not exceeding:</p> <p>25 dB for frequencies of 500 Hz and 1,000 Hz;</p> <p>30 dB for frequencies of 2,000 Hz;</p> <p>40 dB for frequencies of 4,000 Hz.</p> <p>For serving seafarers</p> <p>30 dB for frequencies of 500 Hz and 1,000 Hz;</p> <p>35 dB for frequencies of 2,000 Hz;</p> <p>50 dB for frequencies of 4,000 Hz.</p>
<p><u>Standards II</u></p> <p>Fitness for all functions, all Seafaring except navigational and watchkeeping functions</p>	<p>For entry into and those currently working in the seafaring profession</p> <p>1) Distance vision: 4/10 for the weakest eye.</p> <p>Correction authorised subject to a visual acuity without correction of 1/10 for the weakest eye.</p> <p>2) Satisfactory near vision at level 3 of the Parinaud scale,</p> <p>3) Binocular visual field normal.</p> <p>4) Monophthalmic persons, upon advice from the Maritime Medical College</p>	<p>SPC 2 (f)</p>	<p>Entry to the seafaring profession</p> <p>Whisper testing perceived at least three metres away, two metres for the worst ear.</p> <p>Hearing loss for each ear in pure tone audiometry not exceeding:</p> <p>- For the best ear: 30 dB for frequencies of 500 Hz, 1,000 Hz, 2,000 Hz and 3,000 Hz;</p> <p>- For the worst: 40 dB for the same frequencies;</p> <p>No minimum standard for the frequency of 4,000 Hz</p>

(a) For those currently working, any decision concerning the overruling of sensory standards is at the discretion of the Maritime Medical College.

(b) Refractive surgery is accepted as long as the procedure was more than 6 months ago, the eye examination does not reveal any postoperative complications and the resistance to glare is normal. A glare test is required to meet standards I. Those concerned should note the period of at least six months during which they will be declared temporary unemployable for navigation and watchkeeping duties. This concerns in particular, candidates applying for navigational and watchkeeping positions who decide to undergo surgery in order to meet the visual standards.

(c) When the required standards are met using a corrective lens, a spare pair of glasses on board is mandatory. Correction using orthokeratology is prohibited.

(d) Engineers, radio technicians, electricians and crew members performing the engineering watch must meet the minimum requirements of standards II and undergo a professional chromatic aptitude test with satisfactory results.

(e) Colour perception test:

SPC 1: No errors when reading the Ishihara test plates;

SPC 2: Errors when reading the plates but no errors when identifying the coloured lights emitted using the Beyne seafaring lantern (specific wavelength for the red and green);

SPC 3: Errors in both tests (plates and lights).

The use of colour-correcting lenses is not permitted.

(f) SPC 3 is compatible with the positions of doctor, captain, general service officer and staff employed solely to the work with fish.

SPC3 is also compatible with the positions of engineer and radio technician as long as the parties in question pass the professional chromatic aptitude test.

Standards I with SPC3 can perform all functions on fishing boats and those with shellfish breeding equipment, sailing up to 5 nautical miles from a place of refuge.

(g) When the hearing testing using a pure tone audiometry test through air conduction does not meet standards I, a specialised assessment is necessary before any fitness decision is made, particularly for seafarers exposed to machine noise.

Any explorations are carried out without a hearing aid.

A serving seafarer presenting an hearing loss above the specified threshold during a pure tone audiometry test may be declared fit in accordance with standards I if the free field vocal audiometry test with a background white noise of 65 decibels, using disyllabic word lists meets the following standards:

- Normal curve appearance;
- 100% intelligibility at 60 dB;
- Deficit threshold at 50% not exceeding 40 dB.

A unilateral cophosis is not compatible with the standards I.

Standards II will be declared if the audiometric vocal curve does not meet the condition above but is, however, compatible with the workstation on board and the type of seafaring in question.