



## Explanatory notice for the CESNI standards for medical fitness

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### 1. Introduction

In November 2018, the European Committee for Drawing up standards in the field of inland navigation (CESNI) adopted standards on medical fitness on the basis of the essential requirements for medical fitness referred to in Annex III of Directive (EU) 2017/2397 of the European Parliament and of the Council on the recognition of professional qualifications in inland navigation and repealing Council Directives 91/672/EEC and 96/50/EC<sup>1</sup>. These requirements are designed for integration in other international and regional regulatory (e.g. Rhine regulation).

The CESNI Secretariat and the Dutch delegation, who presided a temporary working group of experts from medical services from various European countries, worked out an explanatory notice to document the requirements that lay behind the list of criteria for medical fitness for deck crew members in inland navigation and the consequences associated with the definition of such criteria. This notice is for documentary purposes only.

This notice gives an overview on the current situation in inland navigation and provides for details on needs to be addressed by the medical criteria, possible alternatives and consequences of the adoption of the standards.

### 2. Methodology

It was first examined whether the Regulations for Rhine Navigation Personnel (RPN), adopted by the Central Commission for Navigation of the Rhine (CCNR) could provide an appropriate basis for establishing medical criteria for inland navigation in the EU, given that until now the medical criteria set out in RPN have been applied to the vast majority of personnel currently active in inland waterway transport in the EU. This was found to be the case for vision and hearing criteria, but not for establishing standards of physical and mental fitness. The RPN contains detailed criteria for vision and hearing that have proven their practical usefulness and feasibility during the last decades. However, some recent testing methods had to be integrated in the standards.

Other medical criteria set out in the RPN are less specific and might have provided insufficient support for harmonisation given that they are mostly applied by medical services in Western European countries only.

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<sup>1</sup> Directive (EU) 2017/2397 of 12 December 2017, OJ L 345, 27.12.2017, p. 53

Consequently, a choice had to be made on whether or not an existing guideline for medical fitness apart from vision and hearing should be used as a basis for medical criteria. Given that the risk factors relating to maritime navigation in coastal waters and inland navigation are very similar, it was chosen to adopt the IMO/ILO medical criteria for navigation in coastal waters as a starting point. CESNI experts found that the IMO/ILO guidelines from 2013 are known and applied in all European countries. The IMO/ILO Guidelines contain five columns, left to right:

- 1) the international diagnostic code according to the international classification of diseases (ICD);
- 2) justification for criteria;
- 3) criteria for incapacity;
- 4) criteria for reduced fitness/ coastal waters;
- 5) criteria for being fit for all duties worldwide.

To ensure harmonisation and practical feasibility of these medical criteria columns 1 and 2 remain unchanged, with only minor drafting adjustments. Columns 3 and 4 have been adapted where necessary to meet the specific requirements of inland navigation. Column 5 has been deleted.

### **3. Impact on inland navigation**

#### **3.1. Harmonised criteria for vision and hearing**

Compared to current RPN standards, new test methods for colour sense for deck crew members with navigational duties have been added as approved alternative tests to the generally accepted Ishihara plates. A recently developed test method that does not only detect deficiencies in distinguishing red from green, but also blue from yellow, which is seen as accurate with regard to trichromacy (Kuchenbecker-Broschmann) has been introduced. A computer-based colour assessment and diagnosis test (CAD) has been added as well.

With a view to hearing, the so-called whisper test provided for in RPN has been replaced by objective audiometer tests.

##### **3.1.1. Needs addressed by new standards**

The inclusion of new testing methods for vision allows to use more standard test methods which have been tested in medical examination for other modes of transport in several European countries.

The new testing method for hearing replacing the so-called whisper test in RPN is designed to provide for more objective results as it does not depend on the subjective individual perception of an applicant's hearing by an examiner.

For deck crew members currently covered by the RPN and from seven interconnected EU Member States whose medical certificates are recognised under RPN (Austria, Bulgaria, Czech Republic, Hungary, Poland, Romania and Slovakia), standards for vision remain unchanged.

Introducing a more objective hearing test will lead to more exact results for applicants all over Europe.

### **3.1.2 Possible alternatives to the definition of harmonised standards**

Without update of test methods for vision and hearing compared to currently applied RPN standards that are in place since 2004, well tested methods applied in other modes of transport could not be applied in inland navigation.

### **3.1.3 Consequences of the harmonisation**

Adding new test methods allows for more exact results with a view to some deficiencies in colour vision (Kuchenbecker-Broschmann) and easy-to update computer tests. Replacing the so-called whisper test by a more objective test will lead to more exact results as well.

## **3.2. General medical criteria**

### **3.2.1. Needs addressed by the new criteria**

With a view to general medical criteria, for some deck crew members, particularly for deck crew members from EU countries not taking part in the RPN system, dealing for the first time with RPN criteria, may mean they will not meet the criteria of this new CESNI standard. The standards deriving from the IMO/ILO medical criteria for navigation in coastal waters are new to all deck crew members. These criteria are much more detailed than the current medical criteria applied throughout the EU. The effects on deck crew members may therefore vary from one country to another. However, the individual decision on medical fitness of each applicant shall remain with the medical expert identified by the competent authority of a Member State.

The most notable difference between the countries concerns the periods of validity of medical fitness certificates in the case of chronic conditions. This is partly due to the differing structures of the social security and health care systems. In order to overcome this problem, it was decided to establish minimum criteria in relation to the validity periods. Each individual country may lay down a shorter validity period. In addition, the individual medical examiner may issue a medical fitness certificate with a shorter validity period for medical reasons.

### **3.2.2. Explanatory notes to diagnoses where derogations from the IMO/ILO Guidelines were made**

#### E 10 Diabetes - insulin using

The maximum time limitation is five years. Given that the medical certificate for maritime navigation is valid up to two years, seafarers with this medical condition and any other chronic condition are examined at least every two years. The initial medical certificate for inland navigation issued to young people is valid for several decades. In view of the increased risk of medical complications, it was considered necessary to limit the period of validity for certain chronic diseases.

### E 65 Obesity

The World Health Organization distinguishes three obesity levels. The highest, most severe level (level 3 obesity) is defined as having a Body Mass Index (BMI), the product of weight in kilogrammes divided by the square of the height in metres) of  $\geq 40$ . The BMI is, however, only one of the parameters, the others being the shape of the body frame, physical fitness and body fat percentage. At an individual level, this strict cut-off value may be regarded as unfair.

A person with a BMI of 41 who frequently exercises and is very muscular is far healthier than a person with a BMI of 39 with an extremely high body fat percentage and who does not participate actively in sports. However, the advantages of having such a threshold outweigh this disadvantage. This limit value ensures that the most extreme forms of obesity are excluded.

### F 10 Alcohol abuse / F 11 Drug dependence

In practice, alcohol abuse tends to lead to dangerous situations in inland navigation. Since a "permanent unfitness to work" was not felt to be proportionate, it was decided to declare the person "unfit for one year", followed by "fit with a time limitation" if there is evidence of good control and full compliance with the treatment, and initially with restrictions, i.e. only during daylight and no solo duty in the steering house.

### F 20 Psychosis / F 32 Mood disorders

For psychosis and mood disorders a similar long-term approach based on recurrent examinations was chosen: during the first two years after a period of temporary incapacity there will be an examination every six months and during the subsequent five years yearly medical examinations. The inconvenience suffered by the examinee is considered to be proportionate in relation to the possible consequences for the safety of navigation.

### G 40 Epilepsy

One of the medical conditions that have been the subject of considerable discussion is epilepsy. Because of the acute symptom of sudden loss of muscle strength, even the slightest possibility of a seizure could pose a major threat to the safety of navigation, especially when the crew member concerned is at the helm. The period of unfitness to steer a vessel is therefore long, lasting up to ten years.

### O 00 Pregnancy

As the national legislations differ regarding the working conditions during pregnancy, the following wording has been chosen: "to be in accord with national legislation".

## **3.3.3 Possible alternative to the harmonisation**

With a view to diabetes -insulin using, medical standards could have referred to national guidelines only. This would however not reflect that crew members work in different European countries with differing health care systems and provisions for diabetes.

With a view to the BMI, decisions with a view to rescue and evacuation systems available on the craft a crew member is working on could have been chosen. This would have excluded various craft where no individual rescue systems are in place (e.g. vessels operated by one person only). If an applicant exceeds the limit, temporary unfitness will be indicated to allow for measures to help to reduce BMI.

With a view to alcohol dependency / drug abuse, an individual case-by-case assessment might have been chosen instead of regular check-ups. Regular check-ups can however also be fixed according to the individual case. They allow for regular control of crew members with navigational duties and responsibility. They also allow to identify assistance schemes that could help to keep up and improve the applicant's medical situation.

With a view to epilepsy, shorter periods of unfitness could have been identified. However, in some countries, epilepsy leads to permanent unfitness, inspired by the maritime system where medical assistance and access to hospitals – with a view to injuries incurred during an episode - is more difficult than in inland navigation. The system of restriction and mitigation measures (such as no solo duty in wheelhouse) may allow to keep the applicant's fitness and provides for safe traffic situations at the same time.

With a view to pregnancy, a harmonised period of temporary unfitness could have been an option. However, national legislation provides for minimum periods of unfitness that are in line with the applicant's general health system situation during before and after birth. International, national and regional manning requirements also provide for minimum periods in which a person cannot serve as a member of the minimum crew before and after birth.

### **3.3.4 Consequences of the harmonisation**

CESNI standards will lead to harmonised medical criteria applied on the Rhine and all Union waterways. They allow for individual decisions based on an examination of the applicant's medical condition and take into account experience of medical experts in charge of deciding on the medical fitness of deck crew members from many European countries. CESNI standards do not set fixed minimum standards for crew members but may take into account medical progress as shown in the case of hepatitis C where better therapy options have been introduced after the adoption of ILO/IMO criteria in 2013 which could already be included in the CESNI criteria 2018.

### **3.3.5 Outlook**

Medical standards in inland navigation will therefore need to be re-evaluated in the light of first experience gained after implementation and with a view to ongoing developments in medicine.

Medical standards will also have to be revised with a view to the 11<sup>th</sup> revision of the ICD adopted at the World Health Organisation (WHO) in May 2019.

The implementation and transition guide for the new classification published by WHO recommends a transition period of at least 18 months after the entry into force of the new ICD-11, which is recommended for 1 January 2022; ICD-11 should replace ICD-10 from 1990 starting with recording of morbidity<sup>2</sup>. After the first implementation of an ICD based system in inland navigation, alignment with the new classification should be done in a harmonised way and for other sectors than inland navigation as well. Currently, no dates for the application of the revised classification are known from EU Member States yet. A revision is part of the CESNI work programme 2019-2021.

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<sup>2</sup> [https://icd.who.int/docs/ICD-11%20Implementation%20or%20Transition%20Guide\\_v105.pdf](https://icd.who.int/docs/ICD-11%20Implementation%20or%20Transition%20Guide_v105.pdf)