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ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on Inland Water Transport
(Forty-third session, 25-27 October 1999,
agenda item 7(c))

UPDATING THE EUROPEAN CODE FOR INLAND WATERWAYS (CEVNI)

Note by the secretariat

The secretariat reproduces below the text of a draft resolution on amendment of CEVNI, relating to its annexes 4, 5, 7, 9, 10 and 11, as agreed by the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation (SC.3/WP.3) in the course of its eighteenth session (TRANS/SC.3/WP.3/36, paras. 8 and 18-20). It includes, in particular, the modifications to be made to annex 7 regarding cross-references to articles of the reorganized chapter 3 (see TRANS/SC.3/1999/8), received from the Chairman of the Working Party SC.3/WP.3 Mr. Van Doorn (Netherlands). The text of the draft amendments is reproduced in the format corresponding to the one used in the revised CEVNI (see TRANS/SC.3/115/Rev.1).

GE.99-22993

Additions and Amendments to resolution No. 24 on CEVNI: European Code for Inland Navigation

Resolution No. ...

(adopted on ... October 1999 by the Working Party on Inland Water Transport)

The Working Party on Inland Water Transport,

Considering resolution No. 24 of the Working Party on Inland Water Transport concerning CEVNI: European Code for Inland Waterways (TRANS/SC.3/115), as amended by its resolutions Nos. 26 (TRANS/SC.3/115/Add.1), 27 (TRANS/SC.3/115/Add.2) and 37 (TRANS/SC.3/115/Add.3),

Bearing in mind the report of the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation on its eighteenth session (TRANS/SC.3/WP.3/36, paragraphs 8 and 18-20),

Noting the desirability in the interest of safety in navigation of taking into account in CEVNI the latest developments in inland navigation and their consequences for the regulations in force,

Decides to amend and supplement the text of CEVNI and its annexes by the text contained in the annex to this resolution,

Requests Governments and River Commissions to inform the Executive Secretary of the Economic Commission for Europe whether they accept this resolution,

Requests the Executive Secretary of the Economic Commission for Europe to place the question of the application of this resolution periodically on the agenda of the Principal Working Party on Inland Water Transport.

Annex

1. Amend annexes 4 and 5 to read:

"Annex 4

LIGHTS AND THE COLOUR OF SIGNAL LIGHTS ON VESSELS

I. GENERAL

Definitions

1. Lanterns

A lantern is a device for distributing the flux from a light source; it also includes the components needed to filter, refract or reflect the light, and hold or operate the light source.

Lanterns intended to give signals on board a vessel are called signal lanterns.

2. Signal lights

Signal lights are the light signals emitted by signal lanterns.

3. Light sources

Light sources are electrical or non-electrical devices designed to produce light flux in signal lanterns.

4. Technical requirements

The construction of and materials of signal lanterns shall be such as to ensure their safety and durability.

The components of the lantern (for example the cross braces) shall not modify the intensity, colours or dispersion of the light.

It shall be possible to install the lights on board simply and in the correct position.

It shall be easy to replace the light source.

II. COLOUR OF SIGNAL LIGHTS

1. A five colour signal system is applied to the lights, and comprises the following colours:

"white"
"red"
"green"
"yellow" and
"blue"

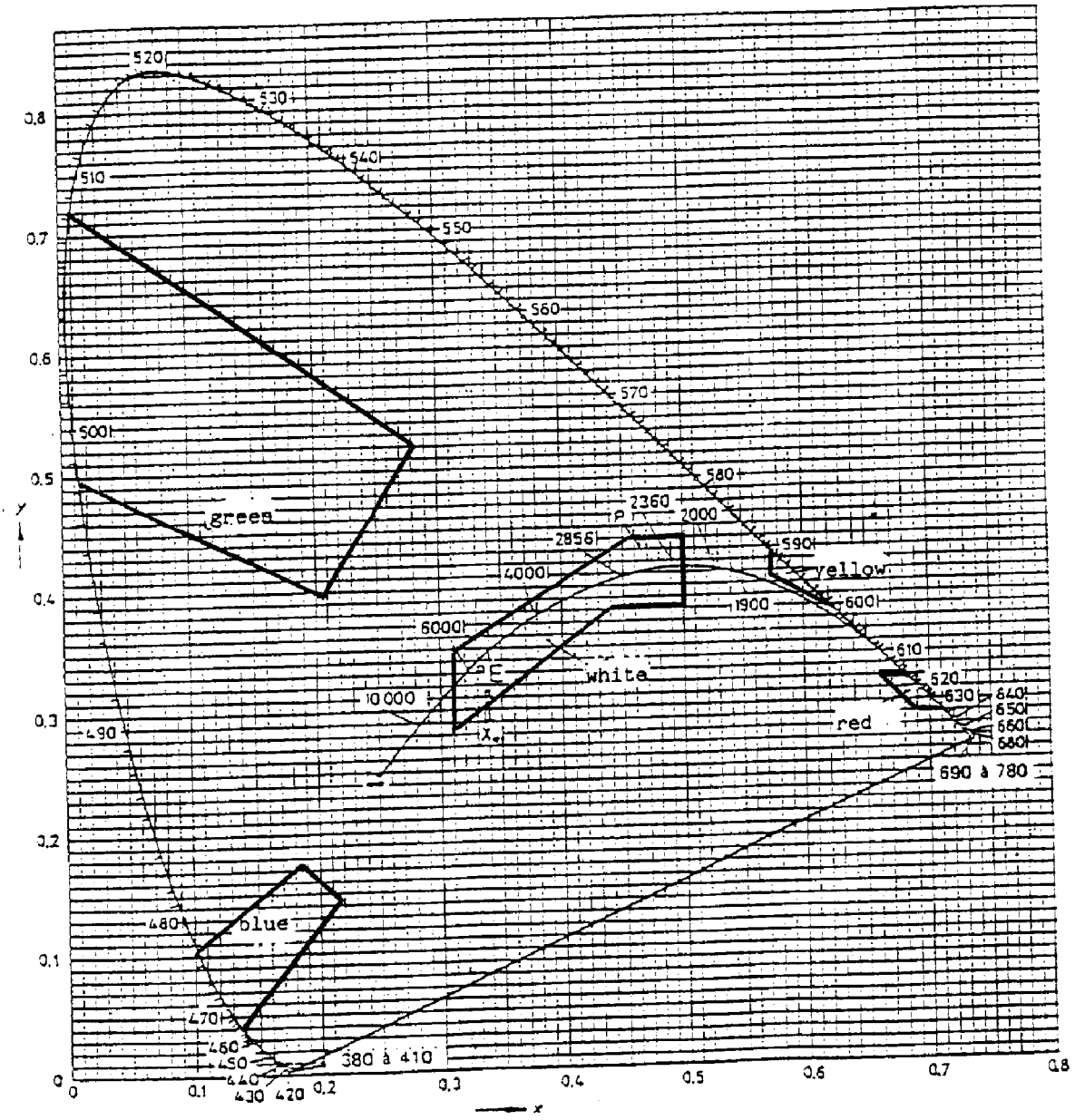
This system conforms to the recommendations of the International Commission on Illumination, "Colours of Signal Lights", IEC publication No. 2.2. (TC-1.6) 1975.

The colours apply to the light fluxes emitted by the lantern.

2. The colour boundaries of signal lights are demarcated by the co-ordinates (table 1) of the intersecting points of the chromatic diagram of IEC publication No. 2.2 (TC-1.6) 1975 (see chromaticity diagram).

Table 1.

Colour of signal light	Co-ordinates of the intersecting points						
White	x	0.310	0.443	0.500	0.500	0.453	0.310
	y	0.283	0.382	0.382	0.440	0.440	0.348
Red	x	0.690	0.710	0.680	0.660		
	y	0.290	0.290	0.320	0.320		
Green	x	0.009	0.284	0.207	0.013		
	y	0.720	0.520	0.397	0.494		
Yellow	x	0.612	0.618	0.575	0.575		
	y	0.382	0.382	0.425	0.406		
Blue	x	0.136	0.218	0.185	0.102		
	y	0.040	0.142	0.175	0.105		



IEC chromaticity diagram

2360 K corresponds to the light of a vacuum filament lamp.
2848 K corresponds to the light of a gas-filled filament lamp.

Annex 5

INTENSITY AND RANGE OF SIGNAL LIGHTS ON VESSELS

I. GENERAL

1. Signal lights

Signal lights are classified according to their luminous intensity as:

"ordinary lights"
"bright lights"
"strong lights".

2. Relation between I_O, I_B and t

I_O is the photometric luminous intensity in candela (cd) measured at normal voltage for electric lights.

I_B is the operation luminous intensity in candela (cd).
t is the range in kilometres (km).

Taking into account, for example, the ageing of the light source, the degree of dirtiness of the optic and variations in the voltage of the on-board grid, I_B is 25 per cent less than I_O.

Consequently $I_B = 0{,}75 \cdot I_O$

The relation between I_B and t of signal lights is given by the following equation:

$I_B = 0{,}2 \cdot t^2 \cdot q^{-t}$

The atmospheric transmission coefficient q has been taken as 0.76, corresponding to a meteorological visibility of 14.3 km.

II. INTENSITY AND RANGE [1]

1. Luminous intensity and range of the signal lights

The following table contains the permitted limits for I_O, I_B and t according to the nature of signal lights. The values indicated apply to the light flux emitted by the lantern.

I_O and I_B are given in cd and t in km.

Minimum and maximum values.

[1] On certain inland waterways the competent authority may allow the carriage by vessels of signal lights in accordance with the requirements of IMO.

Nature of the signal lights	Colour of signal lights							
	white		green/red		yellow		blue	
	min.	max.	min.	max.	min.	max.	min.	max.
I_O	2.7	10.0	1.2	4.7	1.1	3.2	0.9	2.7
ordinary I_B	2.0	7.5	0.9	3.5	0.8	2.4	0.7	2.0
t	2.3	3.7	1.7	2.8	1.6	2.5	1.5	2.3
I_O	12.0	33.0	6.7	27.0	4.8	20.0	6.7	27.0
bright I_B	9.0	25.0	5.0	20.0	3.6	15.0	5.0	20.0
t	3.9	5.3	3.2	5.0	2.9	4.6	3.2	5.0
I_O	47.0	133.0						
strong I_B	35.0	100.0						
t	5.9	8.0						

III. SIGNAL LIGHT DISPERSION

1. Horizontal dispersion of intensity

(a) The luminous intensities indicated in number II apply to all directions of the horizontal plane passing through the focus of the optic or the luminous centre of gravity of the light source correctly adjusted within the operational sector of a vertically positioned lantern.

(b) For the masthead lights, stern lights and side lights, the luminous intensities prescribed shall be maintained throughout the horizontal arc within the sectors prescribed at least up to within 5E of the limits.

As from 5E within the sectors prescribed up to the limit, the luminous intensity may decrease by 50%; it shall subsequently decrease gradually in such a way that, as from 5E beyond the limits of the sector, only a negligible amount of light remains.

(c) The side lights shall have the prescribed luminous intensity in the direction parallel to the axis of the vessel forward. The intensities shall decrease practically to zero between 1E and 3E beyond the limits of the prescribed sector.

(d) For bi-coloured or tri-coloured lanterns, the dispersion of the luminous intensity shall be uniform so that 3E on either side of the prescribed sector limits, the maximum permitted intensity is not exceeded and the minimum prescribed intensity is reached.

(e) The horizontal dispersion of the luminous intensity of the lanterns shall be uniform throughout the sector, so that the minimum and maximum values observed do not differ more than by a factor of 1.5 from the photometric luminous intensity.

2. Vertical dispersion of intensity

In the event of heeling of up to ± 5E or ± 7.5E from the horizontal, the luminous intensity shall remain at least equal to 80% in the first case, and 60% in the second case, of the luminous intensity corresponding to 0E heeling, although it shall not exceed it by more than 1.2 times."

2. Amend the explanatory texts of signs E.5.4 - E.5.15 of annex 7 to read:

"E.5.4 Berthing area reserved for pushing-navigation vessels that are not required to carry the marking prescribed in article 3.14 (see article 7.06)

E.5.5 Berthing area reserved for pushing-navigation vessels that are required to carry one blue light or one blue cone under article 3.14, paragraph 1 (see article 7.06)

E.5.6 Berthing area reserved for pushing-navigation vessels that are required to carry two blue lights or two blue cones under article 3.14, paragraph 2 (see article 7.06)

E.5.7 Berthing area reserved for pushing-navigation vessels that are required to carry three blue lights or three blue cones under article 3.14, paragraph 3 (see article 7.06)

E.5.8 Berthing area reserved for vessels other than pushing-navigation vessels that are not required to carry the marking prescribed in article 3.14 (see article 7.06)

E.5.9 Berthing area reserved for vessels other than pushing-navigation vessels that are required to carry one blue light or one blue cone under article 3.14, paragraph 1 (see article 7.06)

E.5.10 Berthing area reserved for vessels other than pushing-navigation vessels that are required to carry two blue lights or two blue cones under article 3.14, paragraph 2 (see article 7.06)

E.5.11 Berthing area reserved for vessels other than pushing-navigation vessels that are required to carry three blue lights or three blue cones under article 3.14, paragraph 3 (see article 7.06)

E.5.12 Berthing area reserved for all vessels that are required to carry the marking prescribed in article 3.14 (see article 7.06)

E.5.13 Berthing area reserved for all vessels that are required to carry one blue light or one blue cone under article 3.14, paragraph 1 (see article 7.06)

E.5.14 Berthing area reserved for all vessels that are required to carry two blue lights or two blue cones under article 3.14, paragraph 2 (see article 7.06)

E.5.15 Berthing area reserved for all vessels that are required to carry three blue lights or three blue cones under article 3.14, paragraph 3 (see article 7.06)"

3. Delete annexes 9, 10 and 11.
