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Working Party on Inland Water Transport

Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation

Forty-eighth session

Geneva, 17–19 February 2016 Item 6 (d) of the provisional agenda Inland waterways infrastructure: Guidelines for Waterway Signs and Marking (Resolution No. 59, revised)

Proposal for the revision of Resolution No.59, Guidelines for Waterway Signs and Marking

Note by the secretariat

I. Mandate

- 1. This document is submitted in line with cluster 5: Inland Waterway Transport, paragraph 5.1 of the programme of work 2014–2015 (ECE/TRANS/2014/23) adopted by the Inland Transport Committee on 27 February 2014.
- 2. The Working Party on Inland Water Transport at its fifty-ninth session asked the secretariat to prepare an amendment proposal to Resolution No. 59 on the basis of the revised Instruction on the Mode of Installation of Waterway Signs and Marking on the Danube (ECE/TRANS/SC.3/2015/5) and the fifth edition of the European Code for Inland Waterways (CEVNI) for the next session of SC.3/WP.3 (ECE/TRANS/SC.3/201, para. 31).
- 3. The Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation (hereafter the Working Party) may wish to discuss the proposal prepared by the secretariat for the future revision of Resolution No. 59 and decide as appropriate.

II. Amendments introduced to the fifth revised edition of the European Code for Inland Waterways relevant to Resolution No. 59

A. Chapter 1, General provisions

- 4. Amendments introduced to Article 1.01 do not refer directly to waterway signs and marking; however, they could be relevant to their scope of application:
 - a new term "sports or pleasure craft" is introduced in Section I, para. 14;
 - the terms "left and right banks" is modified in Section IV, para. 14;
 - the definition "right-hand side/left-hand side" is modified and transferred to Article 1.01 from Annex 8.

B. Annex 7, Waterway Signs and Marking

- 5. New signs introduced to Annex 7:
 - A.1g (Sections closed to use, no entry except for non-motorized small craft);
 - E.6.1 (Use of spuds permitted);
 - E.9.c (The waterways being approached are considered to be tributaries of this waterway);
 - E.25 (Electrical power supply point);
 - E.26 (Winter harbour) and E.26.1 (Maximum number of vessels permitted to berth in winter harbour);
 - E.27 (Winter shelter) and E.27.1 (Maximum number of vessels permitted to berth in winter shelter, Maximum number of vessels permitted to berth abreast, Maximum number of rows of vessels which are berthed abreast).
- 6. Modified signs:
 - E.19 (Craft other than motorized vessels or sailing craft permitted);
 - C.4 (Restrictions on navigation shall be marked on the information plate below the sign).

C. Annex 8, Buoyage and Marking of the Waterways

7. A new Section IV bis, Other marking of danger points and obstacles in the waterway, is introduced.

III. Principal differences between Resolution No. 59 and the revised Instruction on the Mode of Installation of Waterway Signs and Marking on the Danube

8. The structure of the two documents is similar, but the Instruction on the Mode of Installation of Waterway Signs and Marking on the Danube (hereafter the Instruction) contains five annexes, some of which were considerably revised, while Resolution No. 59

contains two annexes. The main differences between the two documents are given below. Furthermore, in the Instruction some terms used in Resolution No. 59 have been modified, for instance, the term "alluvial channels" has been replaced by "meandering sectors". In addition, text of some of the paragraphs has been modified.

- 9. In paragraph 1.7 of the Instruction recommendations for classification of luminous intensity and calculation of the light range are added.
- 10. Colours of lights in paragraph 1.8 and in Annex 2 of the Instruction are given according to CIE publication S 004/E-2001, class A, while Resolution No. 59 refers to the recommendations of the International Commission on Illumination ("Colours of Light Signals", CIE Publication No. 2.2–1975 (TC–1.6)).^{1, 2}
- 11. Three degrees of visibility of signs and signals in paragraph 3.5 of the Instruction correspond to the recommendations of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA). Therefore, the criteria of visibility set up in paragraphs 3.6–3.9 of the Instruction differs from those stated in paragraphs 3.6–3.9 of Resolution No. 59. Viewing angle in the Instruction is given in angular minutes, while in Resolution No. 59 it is given in degrees.
- 12. In paragraph 3.14 of the Instruction requirements to the back lighting of lighted boards are added which are specified in Annex 4, Lighting of traffic signs.
- 13. When determining conditions for the visibility of lights, the intensity of sources of light and duration of a flash of light in Resolution No. 59 (paragraphs 3.16–3.18) refers to Resolution No. 61, Annex 7, Section II, while the Instruction refers to Annex 2, Properties of lights, and Annex 8 to the Basic Provisions relating to Navigation on the Danube (DFND).
- 14. Section 5, Image display techniques, of Resolution No. 59, together with Appendix 2 is replaced in the Instruction by Variable message signs to regulate traffic and refers to Annexes 3–5.
- 15. Section 6, Installation of radar reflectors on marking signs and signals, of Resolution No. 59 is significantly updated in the Instruction.
- 16. Annex 1, Minimal dimensions of the signs from Annexes 7 and 8 to DFND similar to Appendix 1, Minimal dimensions of the signs from Annexes 7 and 8 to the European Code for Inland Waterways of Resolution No. 59. However, Annex 1 to the Instruction contains the guidance on the maximum distances at which the various signs are visible, which is missing in Appendix 1 to Resolution No. 59.
- 17. Annex 2, Properties of lights, corresponds to Resolution No. 61, Annex 7, Section II, and Annex 3, Colours of reflected light for navigation signs, corresponds to Resolution No. 61, Annex 7, Section I. However, the norms applied in these two documents are different.
- 18. Annex 4, Lighting of traffic signs, is made on the basis of European standard EN 12899-1. Annex 5, Examples for variable-message traffic signs, is made on the basis of European standard EN 12966-1 There are no similar annexes in Resolution No. 59.

CIE Publication No. 2.2–1975 (TC-1.6)) is referred to also in Resolution No. 61, Annex 7 (note of the secretariat).

² Standard CIE S 004/E-2001 supersedes the recommendations made in CIE Publication 2.2-1975 Colours of Light Signals (note of the secretariat).

IV. Proposal for modification of Resolution No. 59

19. The Working Party may wish to consider amendments that could be introduced to Resolution No. 59 (see the table below):

Resolution No. 59	Proposed modification
Para. 1.4	Add a reference to the text of Annex 8 to CEVNI, Chapter I, Section A:
	"The waterway, the fairway, as well as the danger points and obstacles are not always marked.
	Floating waterway markings, are anchored at approximately 5 m distance from the limits that they indicate.
	Groynes and shallows can be marked using fixed marks or buoys. These marks or buoys are usually placed on the borders of groynes and shallows or in front of them.
	It is necessary to keep a sufficient distance from the marks and the buoys to avoid the risk of getting on the ground or hitting an obstacle."
Para. 1.7	Revise the text on the basis of paragraph 1.7 of the Instruction
Para. 1.8	Revise the text on the basis of paragraph 1.8 and Annex 2 of the Instruction
Paras. 3.5–3.9	Revise the text on the basis of paragraphs 3.5–3.9 of the Instruction
Para. 3.14	Consider the possibility of amending the text on the basis of paragraph 3.14 of the Instruction
Paras. 3.16– 3.18	Revise the text on the basis of paragraphs 3.16–3.18 of the Instruction
Para. 3.19	Here, it should be noted, that characteristics of signal lights are no longer prescribed by Annex 8 to CEVNI and they are transferred to Resolution No. 1
Section 4	Possible modification of the text on the basis of changes introduced to the Instruction could be further proposed by the secretariat together with the Danube Commission and the International Sava River Basin Commission
Section 5	The text could be revised on the basis of Section 5 of the Instruction; however, it should be noted that the latter refers to European standards EN 12899–1. Annex 5, Examples for variable-message traffic signs, is made on the basis of European standard EN 12966–1
Section 6	Revise the text on the basis of Section 6 of the Instruction
Appendix 1	To add the guidance on the maximum distances at which the various signs are visible from the Instruction;
	to add the following signs: A.1g (is missing in DC), E.6.1, E.9.c, E.25, E.26, E.26.1, E.27 and E.27.1 (in the Instruction Roman numbers on the sign are black, while in CEVNI they are blue);
	to amend the following signs: A19, E.19.
Appendix 2	The text could be revised on the basis of Annexes 4 and 5 of the Instruction; however, it should be noted that the latter refer to European standards EN 12899–1.1 and EN 12966–1.1.

V. Possible implications for other UNECE Resolutions

- 20. Amendments to colours of the lights and calculations of luminous intensity will imply respective changes to Resolution No. 61, Appendix 7.
- 21. Signs and Signals on Inland Waterways (SIGNI) will need revision to bring it in line with the fifth revised edition of CEVNI and ongoing revision of Resolution No. 59.