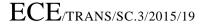
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Economic Commission for Europe

Inland Transport Committee

Working Party on Inland Water Transport

Fifty-ninth session Geneva, 9-11 November 2015 Item 4 of the provisional agenda **Follow-up to the UNECE White Paper on efficient and sustainable inland water transport in Europe**

> Amendments to the Police Regulations for the Navigation of the Rhine and the Regulations for Rhine Navigation Personnel, amendment of the administrative arrangement related to boatmaster's certificates and radar certificates concluded with the Austrian authorities

Transmitted by the Central Commission for the Navigation of the Rhine (CCNR)

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. In 2015, the Central Commission for the Navigation of the Rhine (CCNR) adopted resolutions on requirements for vessels powered by liquefied natural gas (LNG) (resolution 2015-I-7), model "Rhine patents" (resolution 2015-I-10), the recognition of the logbooks of third States on the Rhine (resolution 2015-I-11) and an administrative arrangement concluded by the Commission with Austria (resolution 2015-I-12). The protocols containing those resolutions and their annexes appear in annexes I, II, III and IV to the present document.



Annex I

Protocol 7: requirements for vessels powered by liquefied natural gas (LNG)

Amendments to the Police Regulations for the Navigation of the Rhine by means of a temporary requirement and to the Regulations for Rhine Navigation Personnel through a definitive amendment

1. European inland navigation vessels are currently almost exclusively diesel powered. The European Union and the member States of the Central Commission for the Navigation of the Rhine (CCNR) wish to introduce alternative fuels for inland navigation, as is the case for other modes of transport. In a number of national and European research and development projects, liquefied natural gas (LNG) has been identified as being perfectly suitable for inland navigation, given its low cost per energy unit, its high energy density and the fact that, in principle, natural gas combustion has a low impact on the environment and the climate. In the present resolution, LNG is understood to mean natural gas that has been liquefied by cooling it to -161 $^{\circ}$ C.

2. CCNR supports the introduction of LNG as an alternative fuel for inland navigation. In its Vision 2018, the Commission states that: "Innovations in favour of alternative fuels and sources of energy, particularly LNG, are encouraged, with the maintenance of safety conditions."

3. The safety risks involved in using natural gas as a fuel (for example, in the form of LNG) are greater than for using diesel. As in the case for other fuels with a flashpoint at or below 55 °C, the use of any type of natural gas on inland navigation vessels on the Rhine and throughout Europe is currently not allowed. In order to determine whether LNG can be used safely, CCNR has authorized its use by 15 vessels on a temporary basis, on the condition that a long list of technical and operational requirements are met. To that end, the Commission formulated a number of recommendations in line with article 2.19, paragraph 3, of the Rhine Vessel Inspection Regulations. Five of the 15 vessels are currently in operation. Based on reports regularly submitted by the vessels' operators, it has been concluded that it is possible for inland navigation vessels to use LNG as a fuel in complete safety so long as specific requirements relating to the construction and operation of the vessels and the training of their crews are met.

4. CCNR has therefore decided to amend its regulations in order to allow the use of LNG, subject to the fulfilment of certain requirements. In order to ensure the prompt completion of the amendment of the regulations to allow for the use of LNG, the Commission will consider the possibility of using other alternative fuels only at a later date.

5. Because of the technical complexity of the use of LNG and its wide-ranging implications for inland navigation, the Commission decided that there was a need to work closely with the inland navigation industry and technical experts experienced in the use of LNG. When preparing the amendments to the Police Regulations for the Navigation of the Rhine (RPNR), the Commission was helped by a group of experts receiving support from the "LNG Masterplan for Rhine-Main-Danube" European research project. The supplement to be incorporated into the Regulations for Rhine Navigation Personnel (RPN) was prepared with the assistance both of training centres and of experienced representatives of the navigation industry. The group of experts on

technical requirements relating to liquefied natural gas (LNG) set up by the delegation of the Netherlands assisted CCNR in preparing the very wide-ranging and complex supplements to be incorporated into the Rhine Vessel Inspection Regulations (RVBR). Once the proposed amendments to the regulations had been consolidated, they were presented at a hearing attended by associations from the economic sectors concerned and experts from various administrations, classification societies and other institutions. Those participating in that event generally approved of the proposals. Their additional observations were taken into account by the competent CCNR bodies when the decisions were subsequently made.

6. The delegation of the Netherlands presented impact studies carried out on its own initiative in respect of the proposed amendments and supplements to the CCNR regulations. Overall, the studies supported the implementation of the proposals.

7. The Police Regulations for the Navigation of the Rhine (RPNR) will in particular now include requirements relating to:

- Markings on vessels powered by LNG;
- The passage through locks of vessels powered by LNG;
- Watch and surveillance;
- LNG bunkering.

The requirements relating to bunkering call for the completion of a checklist. The checklist is currently being drawn up and will, as far as possible, be identical to the one for LNG bunkering in seaports. The checklist is to be published in October 2015 as a CCNR standard document in the languages of Rhine navigation and in English. Provision is also made for a specific obligation of registering for vessels powered by LNG. The corresponding requirements are contained in a separate CCNR resolution on the new wording of article 12.01, "Obligation of registering", of the Police Regulations for the Navigation of the Rhine (RPNR).

8. A new Chapter 4 bis on "Supplementary provisions on the expertise of crew members of vessels powered by liquefied natural gas (LNG)" will be incorporated into the Regulations for Rhine Navigation Personnel (RPN). In particular, this chapter will contain requirements:

- Stipulating that the boatmaster and crew members involved in bunkering operations must have expert knowledge and be able to provide an expert certificate; and
- Setting out the content of training courses and examinations.

9. The Rhine Vessel Inspection Regulations (RVBR) will be supplemented by a Chapter 8 ter, made up of specific provisions for vessels equipped with propulsion systems or auxiliary systems using combustible fuels with a flashpoint at or below 55 $^{\circ}$ C, and by an Annex T on liquefied natural gas. Although significant progress has been made in this regard, work still remains to be done owing to the highly complex nature of the issues involved.

10. The amendments to the Rhine Vessel Inspection Regulations (RVBR) cannot be adopted before the autumn of 2015. Nevertheless, it is appropriate for CCNR to adopt the amendments to the Police Regulations for the Navigation of the Rhine (RPNR) and the Regulations for Rhine Navigation Personnel (RPN) now, as there are already several vessels powered by LNG in operation on the basis of previous recommendations, and their number will increase in the coming months.

11. The number of vessels powered by LNG will most probably rise over the next few years. This will give CCNR the opportunity to learn further lessons and to adapt

its regulations if need be. The Police Regulations for the Navigation of the Rhine (RPNR) should be supplemented as soon as possible in order to promptly fill the existing legal vacuum. The Rhine Vessel Inspection Regulations (RVBR) recommendations take into account crew member training; thus there are no legal voids to fill and the industry and training centres will have a year to prepare for the changes.

12. The European Commission has welcomed the efforts of CCNR to establish a legal framework for the use of LNG in inland navigation and has announced that it intends, to the extent possible, to reflect the planned amendments and supplements to the CCNR regulations in the corresponding European regulations.

13. The results of the evaluation planned as a part of the implementation of the guidelines for CCNR regulatory activities (resolution 2008-I-3) and of the impact studies carried out by the delegation of the Netherlands are set out below.

I. Amendment of the Police Regulations for the Navigation of the Rhine

Needs that must be met by the proposed amendments

Annex 1 of the present resolution is designed to amend the Police Regulations for the Navigation of the Rhine (RPNR) through the introduction of requirements for vessels powered by liquefied natural gas (LNG). These vessels present specific risks linked to the type of fuel they use. In order to ensure a level of safety equivalent to that for diesel-powered vessels, specific requirements have been prepared on the operation of vessels powered by LNG on the Rhine.

Possible alternatives to the proposed amendments

There are possible alternatives to a number of the amendments to the Police Regulations for the Navigation of the Rhine (RPNR) put forward in Annex 1.

When defining identification markings, a number of variations are possible. The "LNG" identification marking could be placed on the fuel tanks. However, this is not a satisfactory solution, as the fuel tanks may be located below deck. Furthermore, the height of the letters could be increased significantly, from the planned 20 cm to around 1 m. However, the purpose of this marking is to inform persons boarding the vessel that it is powered by liquefied natural gas. Lettering that is a metre tall is unnecessarily large for this purpose and might cause uncalled for alarm among local residents living along the waterway, as has already been noted. Such fears are not raised in the case of vessels transporting dangerous goods.

Vessels powered by LNG could be prohibited from passing through locks at the same time as passenger vessels. Such a restriction is applicable to vessels transporting dangerous goods, under article 6.28 of the current version of the Police Regulations for the Navigation of the Rhine (RPNR). This possibility was discussed by the group of experts consulted as a part of preparatory work on the requirements. The group concluded that, if measures were taken to ensure that no liquefied natural gas was emitted during passage through locks, then vessels powered by LNG could pass through locks with other vessels without compromising safety levels.

Likewise, it might not be necessary to maintain a watch on board berthed vessels consuming liquefied natural gas. The alternative would be to require monitoring, in line with the current version of article 7.08 of the Police Regulations for the Navigation of the Rhine (RPNR). This alternative was, however, rejected. Should the pressure in the fuel tanks rise, the relief valve would release natural gas into the air. Such releases should be avoided because natural gas is mainly made up of methane, a greenhouse gas. Moreover, any malfunction affecting the relief valve or LNG system could put human life, the environment and the vessel itself at risk. The group of experts thus recommended the presence of an on-board watch. Monitoring might, however, be possible under certain conditions: where liquefied natural gas is not being consumed and the LNG system data are monitored remotely. The group of experts concluded that there is no need for an on-board watch if monitoring is carried out by a person capable of intervening promptly if need be.

Paragraphs 7 and 9 of the amendment put forward in Annex 1 introduce requirements relating to LNG bunkering into new articles 8.11 and 15.07 of the Police Regulations for the Navigation of the Rhine (RPNR). A number of those requirements will be reproduced in the bunkering checklist. The alternative would, therefore, be not to formulate requirements on bunkering in the Police Regulations for the Navigation of the Rhine (RPNR). However, the group of experts pointed out that bunkering involved a higher level of risk than any other operation. The most stringent operational safety requirements have thus been reflected in the Police Regulations for the Navigation of the Rhine (RPNR), even if they might also be included on the bunkering checklist. The same approach was taken for environmental protection requirements during the adoption of the Convention on the Collection, Deposit and Reception of Waste Produced during Navigation on the Rhine and Inland Waterways.

Consequences of the amendments

The amendment put forward in Annex 1 modifies several articles of the current version of the Police Regulations for the Navigation of the Rhine (RPNR) and also introduces several new articles.

Paragraph 2 of the amendment supplements the current version of article 1.01 by defining a number of concepts employed when referring to vessels powered by liquefied natural gas.

Paragraph 3 of the amendment is designed to supplement the list of documents that must be kept on board vessels, as provided for under article 1.10, in particular, the required certificates. The new text calls for an operational manual and safety documentation to be kept on board. Those two documents enable crew members to correctly operate and maintain a vessel powered by LNG and to assign tasks in case of fire or accident. Furthermore, given the specific risks presented by the operation of such vessels, the amendment introduces the obligation to keep on board expert certificates for the boatmaster and for crew members involved in bunkering operations.

Paragraph 4 of the amendment introduces a new article 2.06, which stipulates an identification marking for vessels powered by LNG. In case of accident, it is vital that the emergency services should be able to ascertain that they are intervening on board a vessel powered by LNG. Consequently, paragraph 4 of the amendment provides that such vessels must carry an "LNG" identification marking placed in a location that is clearly visible to persons boarding the vessel (the LNG marking is identical in all different language versions). This identification marking and its dimensions were presented during a hearing before registered bodies and industry representatives, which judged it to be a good compromise, as it would be visible, but sufficiently discrete to avoid causing undue alarm among local residents living alongside the waterway. Paragraph 12 of the amendment supplements Annex No. 3 of the Police Regulations for the Navigation of the Rhine (RPNR) on the use of this new identification marking to mark vessels.

Article 6.28 of the current version of RPNR is supplemented by paragraph 5 of the amendment, which contains requirements applicable to vessels powered by LNG passing through locks. Locks are confined spaces and it is impossible to rule out the

presence of sources of ignition when passing through a lock with another vessel, such as a passenger vessel. Therefore, steps must be taken to ensure that during passage through locks there are no emissions of natural gas so as to avoid any risk of fire. The groups of experts specifically consulted on this issue did not consider that there was a need for vessels powered by LNG to pass through locks separately.

Article 7.08 of the current version of RPNR stipulates that, under certain circumstances, there must be an effective watch on certain vessels and, in all cases, monitoring must be carried out. Paragraph 6 of the amendment extends those on-board watch requirements to vessels powered by LNG. On-board watch duty on those vessels must be performed by a crew member with an expert certificate in the use of liquefied natural gas as a fuel. However, where there is unconsumed liquefied natural gas (the release of LNG through a safety valve is not considered to be consumption) and the LNG system operational data are subject to remote surveillance, only the surveillance is required, on the condition that it is carried out by a person capable of intervening promptly if need be.

According to the experts consulted, in the use of vessels powered by LNG, bunkering is the operation involving the highest level of risk. Paragraphs 7 and 9 of this amendment are thus designed to supplement RPNR with the introduction of two new articles containing requirements on LNG bunkering. These requirements focus on bunkering operations and personnel safety during such operations. On-board safety requirements have been brought together under new article 8.11. The requirements relating to bunkering are contained in new article 15.07. This article sets out the main safety conditions for bunkering, stipulating in particular that a bunkering checklist must be completed prior to the commencement of the operation. New article 15.07 also provides that vessels engaged in bunkering operations must display two signs: one informing nearby vessels that they must not be berthed within 10 m of the vessel receiving LNG and the other warning them not to create wash. These measures are designed to ensure that other vessels remain around 20 metres from the hose connection between the receiving vessel and the bunkering station, which is in line with the recommendations of the group of experts consulted for the preparation of these requirements.

Consequences of the rejection of the proposed amendments

These proposed amendments to RPNR could be abandoned. However, the text currently in force does not provide for any specific requirements for vessels powered by LNG. It is apparent from the impact studies that use of this fuel is set to increase. The use of LNG involves specific risks. In the absence of any requirements minimizing those risks, the high level of Rhine navigation safety might no longer be guaranteed. Moreover, a solid regulatory framework not only helps with the visibility of the industry; it also facilitates the apt development of LNG-related technologies. Consequently, now would seem to be a good time to introduce requirements.

Results of the impact studies on police requirements for vessels powered by LNG

(a) Overview of the interested parties

The following parties were consulted: industry bodies (the European Barge Union (EBU) and the European Organization of Barge Owner Operators (OEB)), authorities and other interested parties. The parties were invited to take the floor at a hearing held on 2 February 2015, at which the draft requirements received overall approval. It was felt that the nautical requirements for vessels powered by LNG should not differ significantly from those for diesel-powered vessels. There was a clear preference for reasonably sized identification markings. Within the industry, there is support for specific requirements covering LNG bunkering.

(b) Costs for the industry

The main costs relating to vessels powered by LNG are investments in terms of vessel construction or the adaptation of existing vessels. The adaptation costs are of the order of about million euros. The additional investment for the markings required under the amendment to RPNR is thus insignificant.

The main cost generated by these requirements arises from the requirements stating that a checklist must be completed prior to bunkering, and prohibiting navigation, loading and unloading during bunkering. According to the impact study presented by the delegation of the Netherlands, vessels bunkering LNG must remain moored for four hours longer than vessels bunkering diesel fuel, with those four hours divided equally between administrative procedures and actual bunkering. The extra cost ranges from \pounds 480 to \pounds 2,860 per bunkering operation, depending on the characteristics of the vessel. Moreover, taking into account the current level of technological development, the vessels powered by LNG currently navigating on the Rhine have to bunker around 1.5 times more frequently than comparable diesel-powered vessels.

The presence of a watch on board berthed vessels may also generate an extra cost, unless it is already required under another regulation (transportation of dangerous goods, for example).

(c) Usefulness for the industry

The requirements amending RPNR are useful to the industry in that they ensure that a high level of safety is maintained in Rhine navigation. This, in turn, will encourage the development of a technology promoted by a section of the industry.

Moreover, in the use of vessels powered by LNG, bunkering is the operation involving the highest level of risk. Paragraphs 8 and 9 of the amendment introduce specific requirements for bunkering. Provision is made for the completion of a checklist prior to the commencement of bunkering. This will make it easier for those in the industry to identify risks during bunkering.

(d) Costs and benefits for public authorities (and potentially for users)

From the point of view of society as a whole, the use of LNG as a fuel reduces air pollution (in particular, particle and nitrogen oxide emissions).

From the point of view of the authorities, administrative costs could rise owing to increases in the numbers of vessels obliged to file notifications and of checks to ensure compliance with these specific requirements. Costs will depend on the speed with which the fleet grows.

Lastly, in case of accident, the notification obligation and the identification marking will enable the authorities and emergency services to quickly locate vessels and be aware of the nature of the vessel in question prior to boarding.

II. Amendment of the Regulations for Rhine Navigation Personnel (RPN)

Needs that must be met by the proposed amendments

Annex 2 to the present draft resolution is designed to supplement the Regulations for Rhine Navigation Personnel (RPN) by incorporating specific requirements relating to members of crews of vessels powered by LNG.

The requirements will help to ensure safe and orderly inland navigation and the safe use of liquefied natural gas as a fuel.

Possible alternatives to the proposed amendments

A number of alternatives to the proposed amendments have been considered:

• Crew members:

With regard to plans to require that crew members provide proof of expertise, three alternatives were considered and found to be insufficient or excessive. An alternative under which only the boatmaster would be required to provide proof of expertise was rejected as insufficient, as was an alternative under which, in addition to the boatmaster, just one other crew member would have to provide such proof.

An alternative under which all crew members would have to provide proof of expertise, as currently provided for under the recommendations relating to the Rhine Vessel Inspection Regulations (RVBR), was deemed to be excessive.

• Duration of validity:

The duration of validity of the expert certificate has been brought into line with that provided for by the regulations in force (in particular, the Regulations for Rhine Navigation Personnel (RPN) and the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)). The duration of two and a half years currently provided for in the recommendations issued under the Rhine Vessel Inspection Regulations (RVBR) is extended to five years.

• Retraining course/extension by the authorities:

The following options are possible with regard to conditions governing the extension of expert certificates:

- Compulsory repeat training and re-examination for all certificate holders. This approach would result in rules that would be much more restrictive than those applicable to existing additional qualifications, without this being necessary from the point of view of safety;
- The exemption from compulsory repeat training of certificate holders who can provide proof of sufficient navigation time on board vessels powered by LNG. Above all, this approach was designed to take into account the importance of practical experience, which was highlighted by industry representatives during the hearing held on 2 February 2015. However, such an exception was apparently insufficient for certificate holders lacking the required navigation time on board vessels powered by LNG;
- Compulsory retraining course and examination for all certificate holders. Under this option, practical experience would not be taken into account.

Consequences of the proposed amendments

Under article 4 bis.01, both the boatmaster and the crew members taking part in the bunkering of vessels powered by LNG must provide proof of expertise. The article covers inland navigation vessels, seagoing vessels and floating equipment, but not ferry-boats. The requirement of expertise applies to crew members taking part in bunkering, because, in the view of the experts, this operation involves specific risks. Furthermore, boatmasters are required to provide relevant instruction to all crew members.

Consequently, in addition to the boatmaster, all those crew members taking part in bunkering must provide proof of expertise. The other crew members are to receive instructions from the boatmaster.

Articles 4 bis.02, 4 bis.04, 9.05 and Annex E1 stipulate that the expertise must be authenticated by a certificate valid for five years. The period of validity of the certificate may be extended if the holder can provide proof of sufficient navigation time on board vessels powered by LNG, or, if that is not possible, through participation in a retraining course. Another possibility is the issuance by the authority of a certificate that is valid for five years to those crew members who have already been trained and who have navigated on board a vessel powered by LNG.

Article 4 bis.03 and Annex E2 stipulate the form and content of training and retraining courses, with particular focus on the need to demonstrate acquisition of the skills. Thus, training will consist of both a theoretical and a practical component, followed by an examination. The theoretical content of the training course is designed to ensure that trainees acquire sufficient basic knowledge and was adapted accordingly following consultation with experts. Training institutes remain free to deliver the practical component of the training course on board a vessel powered by LNG or at an appropriate on-shore facility (or a combination of the two).

Article 4 bis.05 addresses competences: the competent authorities of the member States of CCNR will recognize training institutes and training and retraining courses in line with a standard set of criteria, which will be set out in the administrative instructions.

Training institutes are competent in terms of the holding of training and retraining courses and the holding of examinations. Depending on the decision taken by each member State, certificates will be issued either directly by the training institute or by the competent authority.

CCNR publishes lists of competent authorities and recognized training institutes and authorized training and retraining courses in electronic form.

Consequences of the rejection of the proposed amendments

The use of LNG as a fuel presents specific risks. Safe and orderly inland navigation also depends to a large extent on the competences of crew members.

These are new developments and crew members have thus not yet had the opportunity to acquire the safety competences in question. Therefore, specific training and examination are required.

The immediate establishment of conditions for legal security specifically enables the industry and training institutes to prepare themselves for this change, freeing them from dependence upon decisions taken on a case-by-case basis in line with the recommendations under the Rhine Vessel Inspection Regulations (RVBR). A rejection of the amendment to RPNR would fundamentally call into question the continued introduction and encouragement of the use of LNG as a fuel. All of this at a time when CCNR has made it clear that it wishes to promote this technology and to continue to ensure safe and orderly inland navigation by supplementing the regulations.

Resolution

The Central Commission,

Acting on a proposal from its Police Regulations Committee and its Committee on Social Issues, Employment and Professional Training,

Acting on the basis of knowledge acquired and insights gained during the period of trial use of liquefied natural gas (LNG) in Rhine navigation,

Having consulted the industry associations concerned and experts from classification societies and other bodies,

Bearing in mind the corresponding European Union initiatives and in cooperation with the competent services of the European Commission,

Wishing to promote innovation in inland navigation through the adaptation of the regulations of the Central Commission for the Navigation of the Rhine (CCNR),

In order to enable Rhine and European inland navigation to use LNG as an alternative fuel,

Aware of the fact that the sustainable use of LNG as a fuel requires a comprehensive and reliable legal framework that safeguards the current high level of inland navigation safety,

Convinced that transparent, reliable, practice-based regulations encourage investment in inland navigation,

Adopts the amendments to the Police Regulations for the Navigation of the Rhine (RPNR) and the Regulations for Rhine Navigation Personnel (RPN) contained in the annexes to this resolution.

The amendment contained in Annex 1 shall remain in force from 1 December 2015 to 30 November 2018.

The amendment contained in Annex 2 shall enter into force on 1 July 2016.

Annex 1: Amendment to the Police Regulations for the Navigation of the Rhine

Annex 2: Definitive amendment to the Regulations for Rhine Navigation Personnel

Annex 1 to Protocol 7

Amendment to the Police Regulations for the Navigation of the Rhine

- 1. The contents are amended as follows:
 - (a) The information relating to Chapter 2 is supplemented with the following:

"Article 2.06: Identification marking for vessels powered by liquefied natural gas (LNG)"

(b) The information relating to Chapter 8 is supplemented with the following:

"Article 8.11: Safety on board vessels powered by liquefied natural gas (LNG)"

(c) The following information relating to article 15.07 is inserted after the information relating to article 15.06:

"Article 15.07: Obligation to exercise vigilance during bunkering with liquefied natural gas (LNG)"

(d) The information currently relating to article 15.07 becomes the information relating to article 15.08.

(e) The information currently relating to article 15.08 becomes the information relating to article 15.09.

2. Article 1.01 is supplemented by letters (ad), (ae) and (af), as follows:

"(ad) 'LNG system': the various components of the vessel which may contain liquefied natural gas (LNG) or natural gas, such as the engines, fuel tanks and bunkering pipes;

(ae) 'bunkering area': the area situated within a 20 m radius of the bunkering hose connection;

(af) 'liquefied natural gas (LNG): natural gas that has been liquefied through cooling to a temperature of -161 °C."

3. Article 1.10, paragraph 1, is amended as follows:

(a) Letter (ac) reads as follows:

"(ac) the certificate of unloading in accordance with article 15.08, paragraph 2,"

(b) The following letters (ad) and (ae) are added:

"(ad) for vessels displaying the identification marking referred to in article 2.06, the operation manual and safety documentation,

(ae) for vessels displaying the identification marking referred to in article 2.06, expert certificates in the use of liquefied natural gas (LNG) as a fuel for the boatmaster and those crew members involved in bunkering operations."

4. The following article 2.06 is added to Chapter 2:

"Article 2.06

Identification marking for vessels powered by liquefied natural gas (LNG) (Annex 3: sketch 66)

1. Vessels powered by liquefied natural gas (LNG) shall display an identification marking.

2. That identification marking shall be rectangular in shape and shall bear the legend 'LNG' in white letters on a red background, with a white border at least 5 cm wide.

The longest side of the rectangle shall be at least 60 cm in length. The letters shall be at least 20 cm high and their width and the thickness of their strokes must be proportional to their height.

3. The identification marking shall be fixed in an appropriate and clearly visible location.

4. The identification marking shall be lit as necessary, in order to ensure that it is clearly visible at night."

- 5. Article 6.28 is amended as follows:
 - (a) The following paragraph 10 is inserted after paragraph 9:

"10. Vessels and convoys displaying the identification marking referred to in article 2.06 shall not be authorized to enter a lock when there are liquefied natural gas (LNG) emissions from the LNG system or when it is probable that there will be such emissions during passage through the lock."

- (b) Existing paragraphs 10, 11 and 12 become paragraphs 11, 12 and 13.
- 6. Article 7.08 reads as follows:

"Article 7.08

Watch and surveillance

1. An efficient watch shall be mounted at all times on board:

(a) Berthed vessels displaying the identification marking referred to in article 2.06;

- (b) Berthed vessels displaying the sign referred to in article 3.14; and
- (c) Berthed passenger vessels with passengers on board.

2. The efficient watch shall be mounted by a crew member who:

(a) For the vessels referred to in paragraph 1, letter (a), holds an expert certificate in the use of liquefied natural gas (LNG) as a fuel;

(b) For the vessels referred to in paragraph 1, letter (b), holds the expert certificate referred to in article 4.01 of the Regulations for Rhine Navigation Personnel.

3. There is no need to mount an efficient watch on board berthed vessels displaying the identification marking referred to in article 2.06 if:

(a) No liquefied natural gas (LNG) is consumed as a fuel on board the vessel;

(b) The operational data of the vessel's LNG system are monitored remotely; and

(c) The vessel is kept under surveillance by a person capable of acting quickly if the need arises.

4. There is no need to mount an efficient watch on board berthed vessels displaying the markings referred to in article 3.14 if:

(a) They are berthed in a harbour basin; and

(b) The competent authorities have declared the vessels exempt from the obligation referred to in paragraph 1 above."

7. The following article 8.11 is added to Chapter 8:

"Article 8.11

Safety on board vessels powered by liquefied natural gas (LNG)

1. Prior to commencing liquefied natural gas (LNG) bunkering operations, the boatmaster of the bunkered vessel shall ensure that:

(a) The required firefighting equipment is ready to be deployed at any moment; and

(b) The required equipment for the evacuation of persons on board the bunkered vessel has been put in place between the vessel and the pier.

2. During liquefied natural gas (LNG) bunkering operations, all entrances or openings of spaces which are accessible from the deck and all openings of spaces facing the outside shall remain closed.

This provision does not apply to:

- (a) Air intakes of running engines;
- (b) Ventilation inlets of engine rooms while the engines are running;
- (c) Air intakes of rooms fitted with an overpressure system; and

(d) Air intakes of air conditioning installations if these openings are fitted with a gas detection system.

These entrances and openings shall only be opened when necessary and for a short time, after the boatmaster has given his or her permission.

3. During liquefied natural gas (LNG) bunkering operations, the boatmaster shall at all times ensure compliance with the prohibition on smoking on board and in the bunkering area. The prohibition on smoking also applies to electronic cigarettes and other similar devices. This prohibition on smoking does not apply to the accommodation or the wheelhouse, provided their windows, doors, skylights and hatches are closed.

4. Once liquefied natural gas (LNG) bunkering operations have been completed, all the rooms accessible from the deck must be aired."

8. Article 15.06 reads as follows:

"1. During filling operations involving fuel or lubricating oil, the boatmaster shall ensure that:

(a) The amount to be supplied is within the readable indicators of the capacity-gauging device;

(b) When fuel tanks are filled individually, the shut-off valves in the connecting pipes between the fuel tanks are closed;

(c) The filling operation is supervised; and

(d) One of the devices referred to in article 8.05, paragraph 10, letter (a), of the Rhine Vessel Inspection Regulations (RVBR) is used.

2. In addition, the boatmaster shall ensure that, before commencing the filling operation, the bunker station staff and crew members responsible for the filling operation have agreed on the following:

(a) The proper working order of the device referred to in article 8.05, paragraph 11, of the Rhine Vessel Inspection Regulations,

(b) A phone connection between the vessel and the bunker station;

(c) The quantity to be supplied to each fuel tank and the filling rate, in particular with regard to possible problems with the fuel tank ventilation systems;

(d) The order in which the fuel tanks are to be filled; and

(e) The speed of navigation in case of filling when under way.

3. The boatmaster of the supply vessel shall be authorized to start the filling operation only after agreement has been reached on the points set forth in paragraph 2."

9. The following article 15.07 is inserted after article 15.06:

"Article 15.07

Obligation to exercise vigilance during liquefied natural gas (LNG) filling operations

(Annex 3, sketch 62)

1. The requirements of article 15.06, paragraph 1, letters (a) and (b) and paragraph 2, letters (a) and (e) do not apply during liquefied natural gas (LNG) filling operations.

2. Liquefied natural gas (LNG) filling operations are not permitted when under way, during the trans-shipment of goods and during passenger embarkation and disembarkation.

3. Liquefied natural gas (LNG) filling operations shall only be carried out at locations designated by the competent authority.

4. Only crew members of the bunkered vessel, bunker station staff and persons having obtained authorization from the competent authority shall be present in the bunkering area.

5. Before commencing liquefied natural gas (LNG) filling operations, the boatmaster of the bunkered vessel shall ensure that:

(a) The receiving vessel is moored in such a way that the cables, in particular the electrical power cables, ground connection terminals and hoses, are not subject to tensile strain and the vessel can be released quickly in an emergency;

(b) A checklist for liquefied natural gas (LNG) filling operations for vessels displaying the identification marking referred to in article 2.06, in line with the standard defined by CCNR, has been completed and signed by the boatmaster or by a person mandated by him or her and by the person responsible for the bunkering station and that there is a positive response to all the questions contained therein. Irrelevant questions should be struck out. If a positive response to all the questions is not possible, bunkering is only permitted with the consent of the competent authority;

(c) All the required authorizations have been obtained.

6. The checklist referred to in paragraph 5, letter (b) shall be:

(a) Completed in two copies;

(b) Made available in at least one language understood by the persons referred to in paragraph 5, letter (b) above; and

(c) kept on board the vessel for three months.

7. During liquefied natural gas (LNG) filling operations, the boatmaster shall constantly ensure that:

(a) All measures are taken to avoid liquefied natural gas (LNG) leaks;

(b) The pressure and temperature inside the liquefied natural gas (LNG) fuel tank remain within normal operational limits;

(c) The degree of filling of liquefied natural gas (LNG) in the fuel tanks remains within the authorized limits;

(d) Measures are taken for grounding the receiving vessel and the bunker station, in line with the method provided for in the operating manual.

8. During liquefied natural gas (LNG) filling operations:

(a) In addition to the identification marking referred to in article 2.06, the receiving vessel shall display a sign that is visible to other vessels and that stipulates that it is prohibited to berth within less than 10 m of the receiving vessel, in accordance with article 3.33. The side of the sign must be at least 60 cm in length;

(b) In addition to the identification marking referred to in article 2.06, the receiving vessel shall display, in a location visible to other vessels, sign A.9 warning other vessels not to create wash (Annex 7). The longest side of the sign must be at least 60 cm in length;

(c) At night time, the signs shall be illuminated in such a way as to ensure that they are clearly visible from both sides of the vessel.

9. After liquefied natural gas (LNG) filling operations, the following steps shall be taken:

(a) The liquefied natural gas bunkering hoses must be drained, right up to the liquefied natural gas (LNG) fuel tank;

(b) The shut-off valves must be closed and the hoses and cables connecting the vessel to the liquefied natural gas (LNG) bunkering station must be disconnected;

(c) The competent authority must be notified of the completion of the bunkering operation."

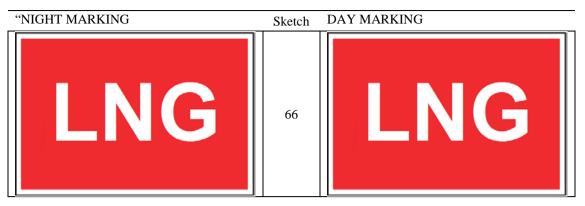
- 10. Existing articles 15.07 and 15.08 become articles 15.08 and 15.09.
- 11. Annex 3 is amended as follows:

(a) The information relating to sketch 62 reads as follows:

"Art 3.33: Prohibition on berthing side-by-side

Art. 15.07, paragraph 8, letter (a): Obligation to exercise vigilance during liquefied natural gas (LNG) bunkering operations."

(b) Sketch 66 (see below) is added:



Art 2.06 Identification marking for vessels powered by liquefied natural gas (LNG)"

12. The information relating to sign A.9 contained in Annex 7, section I, subsection A, reads as follows:

"A.9 Warning not to create wash

(See arts. 6.20, para. 1, letter (e) and 15.07, para. 8, letter (b)"

Annex 2 to Protocol 7

Definitive amendment to the Regulations for Rhine Navigation Personnel (RPN)

Supplementary provisions relating to the expertise of members of crews of vessels powered by liquefied natural gas (LNG) (art. 1.01, ch. 4 bis, Annexes E1 and E2)

- 1. The contents are amended as follows:
 - (a) The information under paragraph 3 is inserted after chapter 4;
 - (b) The information under paragraph 4 is inserted after article 9.04;
 - (c) The information under paragraph 5 is inserted after Annex D8;
 - (d) The information under paragraph 6 is inserted after Annex E1.
- 2. The following paragraph 39 is added to article 1.01:

"39. 'liquefied natural gas (LNG)' is a natural gas that has been liquefied by cooling it to a temperature of -161 $^{\circ}$ C."

3. The following chapter 4 bis is inserted after chapter 4.

"Chapter 4 bis

Supplementary provisions relating to the expertise of members of crews of liquefied natural gas (LNG) vessels powered by liquefied natural gas (LNG)

Article 4 bis.01

Expertise and instruction

1. Boatmasters and crew members involved in the bunkering of vessels powered by liquefied natural gas (LNG) shall have expertise in the use of liquefied natural gas as a fuel.

2. Crew members shall not be authorized to carry out their on-board duties until they have been instructed by the boatmaster in the use of liquefied natural gas (LNG) as a fuel on board the vessel concerned and in particular in the bunkering procedure.

Article 4 bis.02

Certificate

The crew members concerned shall provide an expert certificate in conformity with the model contained in annex E1.

The certificate shall be issued if the candidate has met the requirements contained in articles 4 bis.03 and 4 bis.04.

Article 4 bis.03

Training and examination

The training course for the expertise shall consist of a theoretical component, a practical component and a final examination.

The theoretical component of the training course shall cover the subjects listed in Annex E2, part A.

The practical component of the training course shall address the application in practice of theoretical knowledge on board a vessel powered by liquefied natural gas (LNG) and/or in an appropriately adapted on-shore facility and shall cover the subjects listed in Annex E2, part B.

The examination shall consist of a theoretical component and a practical component and shall cover all the subjects listed in Annex E2, parts A and B. In order to pass, candidates must demonstrate that they have acquired sufficient knowledge and skills in each of the two parts of the examination.

The practical component of the examination shall be administered on board a vessel and/or on land.

Article 4 bis.04

Validity and extension of period of validity of the certificate

1. The certificate shall be valid for a period of five years.

2. On request by the holder, currently valid certificates complying with the model contained in Annex E1 shall be extended by five years by the competent authority, on the condition that the holder:

(a) Can provide proof of the following navigation time on board vessels powered by liquefied natural gas (LNG):

- At least 180 days over the course of the past five years; or
- At least 90 days over the course of the past year;

or, if that is not the case,

(b) Takes part in a retraining course, with an examination. Article 4 bis.03 shall by analogy apply to the contents of the retraining course and the examination, it being understood that the scope of the training and examination will be more limited.

Article 4 bis.05

Competence

Authorized training institutes shall be competent to hold recognized training and retraining courses and examinations and to issue certificates complying with the model contained in Annex E1.

The competent authorities shall recognize training and retraining courses and training institutes on the basis of harmonized criteria defined by CCNR.

The competent authority may reserve the right to issue or extend the period of validity of certificates.

Each competent authority shall be competent to extend the period of validity of certificates on the basis of navigation time.

The competent authorities shall inform CCNR of each decision relating to the recognition of a training institute or its withdrawal or suspension.

The list of authorized training institutes and training courses shall be published by the CCNR in electronic form."

4. Article 9.05, below, is added after article 9.04:

"Article 9.05

Certificate attesting to expertise in the use of liquefied natural gas (LNG) as a fuel

Crew members of vessels which began using liquefied natural gas as fuel prior to 1 July 2016 shall obtain from the competent authorities a certificate within the meaning of article 4 bis.02, if, on the basis of a recommendation made by CCNR in accordance with article 2.19 of RVBR, they have completed a training course and can establish that they have at least 90 days of navigation time on board such vessels."

5. Annex E1, below, is added after Annex D8:

"E: Crew members of vessels powered by liquefied natural gas (LNG)

Annex E1

Model expert certificate in the use of liquefied natural gas (LNG) as a fuel

(Format: A6 vertical, colour: yellow)

extended until:	20	\bigcirc	
(Place and date of extens	ion)	Ŭ	
extended until:	20	\bigcirc	Expert certificate in the use of liquefied natural gas (LNG) as a fuel
(Place and date of extens	ion)	\bigcirc	
extended until:	20	\bigcirc	No
(Place and date of extens	ion)	\bigcirc	
extended until:	20	\bigcirc	
(Place and date of extens	ion)	\bigcirc	
extended until:	20	\frown	
(Place and date of extens	ion)	\bigcirc	

Mr. Ms.:(Family name and first name) Date and place of birth	
has expertise in the use of liquefied natural gas (LGN) as a fuel	Photo of holder
Certificate valid until	
(Date and place of issue)	(Issued by) (Authorized signature)
	,,

6. Annex E2 (below) is added after Annex E1:

"Annex E2

Training Programme for crew members of vessels powered by liquefied natural gas (LNG)

A. Theoretical component of the training course

The theoretical component of the training course shall cover the following subjects:

1. Regulations

1.1 Regulations relating to vessels powered by liquefied natural gas (LNG) (ADN, RPNR, RVBR, directive 2006/87/EC and, if need be, new developments)

- 1.2 Classification society rules;
- 1.3 Relevant health and safety regulations;
- 1.4 Relevant local requirements and authorizations (in particular in port areas).
- 2. Familiarization with liquefied natural gas (LNG)

2.1 Definition of liquefied natural gas (LNG), critical temperatures, related hazards, atmospheric conditions;

2.2 Composition and characteristics of liquefied natural gas (LNG), quality certification for liquefied natural gas;

2.3 Safety Data Sheet (SDS): physical properties and characteristics of the product;

2.4 Environmental characteristics.

3. Safety

- 3.1 Hazards and risks;
- 3.2 Risk assessment;
- 3.3 Risk management;

3.4 On-board safety documentation (including the safety plan and safety instructions);

- 3.5 Dangerous areas;
- 3.6 Fire safety;
- 3.7 Use of personal protective equipment.

4. Technical aspects of the LNG system

- 4.1 General configuration and operating manual;
- 4.2 Presentation of the mode of action of liquefied natural gas;
- 4.3 LNG bunkering system;
- 4.4 Stripping systems and drip trays;
- 4.5 LNG containment system;
- 4.6 Gas preparation system;
- 4.7 LNG pipe system;
- 4.8 Gas supply system;
- 4.9 Engine rooms;
- 4.10 Ventilation system;

4.11 Temperature and pressure (how to read a pressure and temperature distribution chart);

- 4.12 Valves (in particular, the main gas fuel valve);
- 4.13 Pressure relief valves;
- 4.14 Control, surveillance and safety systems;
- 4.15 Alarms and gas detection.

5. Maintenance and monitoring of the LNG system

- 5.1 Daily maintenance;
- 5.2 Weekly maintenance;
- 5.3 Regular periodic maintenance;
- 5.4 Malfunctions;
- 5.5 Maintenance work documentation.

6. Liquefied natural gas bunkering

- 6.1 Identification marking in line with RPNR;
- 6.2 Conditions for berthing and moorage for bunkering purposes;
- 6.3 Liquefied natural gas (LNG) bunkering procedure;

- 6.4 Draining of gas and flushing of the LNG system;
- 6.5 Relevant checklists and delivery certificate;
- 6.6 Bunkering safety measures and evacuation procedures.

7. Preparation of the LNG system for vessel maintenance work

- 7.1 Drainage of gas and flushing of LNG system prior to shipyard stay;
- 7.2 Inerting of the liquefied natural gas system;
- 7.3 LNG fuel tank drainage procedure;
- 7.4 First filling of LNG fuel tank (cooldown);
- 7.5 Entry into service following a shipyard stay.

8. Emergency scenarios

8.1 Emergency measures and on-board safety documentation (including the safety plan and safety instructions);

8.2 On-deck liquefied natural gas (LNG) spills;

8.3 Skin contact with liquefied natural gas (LNG);

8.4 Liquefied natural gas (LNG) spills in closed spaces (for example, engine rooms);

8.5 Liquefied natural gas (LNG) spills or natural gas leaks in inter-barrier spaces (double-walled fuel tanks, double-walled pipes);

8.6 Fire in the vicinity of LNG fuel tanks;

8.7 Fire in the engine rooms;

- 8.8 Specific hazards relating to the transport of dangerous goods;
- 8.9 Vessels running aground or colliding;
- 8.10 Efficient watch emergency measures;

8.11 Remote surveillance emergency measures.

B. Practical component of training course

The practical component of the training course shall cover the following subjects:

1. Familiarization with the vessel management system, in particular those parts relating to the LNG system.

2. Testing of awareness of liquefied natural gas (LNG)-related safety issues and of use of relevant protective equipment.

3. Testing of knowledge of relevant on-board documentation (safety documentation and operating manual).

- 4. Understanding of valves (in particular, the main fuel gas valve).
- 5. Understanding of monitoring, surveillance and safety systems.
- 6. Understanding of LNG system maintenance and monitoring procedures.
- 7. Understanding of and familiarization with the bunkering procedure.
- 8. Understanding of shipyard stay maintenance procedures.

- 9. Understanding of emergency scenarios.
- 10. Firefighting."

Annex II

Protocol 10: amendments relating to the Regulations for Rhine Navigation Personnel (RPN)

Amendment of models of Rhine patents and various boatmaster's certificates and radar certificates (Annexes D1, D5, D6 and A5 of RPN)

Grounds

The model boatmaster's certificates recognized by the member States of CCNR and those third States with which it has signed administrative arrangements are contained in an annex to the Regulations for Rhine Navigation Personnel. The annex also contains the models for recognized third State radar certificates.

Several States have changed their model certificates.

In Germany, the name of the issuing authority has changed and the model boatmaster's certificates and Rhine patents have been modified. Those modifications entered into force on 9 March 2015.

The name of the issuing authority has also changed in France.

Furthermore, CCNR has adopted a new logo which should be introduced as soon as possible for the issuance or extension of Rhine patents. The member States can, however, decide to exhaust existing stocks of printed forms bearing the old logo.

A new decree entered into force on 1 November 2014 in the Slovak Republic. The certificate-issuing authority has changed its name and address and the model boatmaster's certificates and radar certificates have been modified. The name and address of the competent authority for service records deemed to be equivalent issued in Slovakia (Annex A5 to RPN) have also been changed.

There have also been amendments to Czech legislation. The name of the boatmaster's certificate has changed and the model boatmaster's certificates and radar certificates have been modified. These changes, which entered into force on 15 March 2015, are not substantive and do not alter the conditions for obtaining the certificates in question.

On 1 July 2014 and 1 November 2014 respectively, the Republic of Austria and the Slovak Republic began issuing category A boatmaster's certificates, which are also valid on maritime waterways, in accordance with the classification system set out in directive 96/50/EC. The conditions for obtaining a category A boatmaster's certificate are the same as for a category B certificate, with some additional requirements. Following consultation with the Working Group on Social Issues, Employment and Vocational Training and the group of experts on the updating of qualifications, the Committee on Social Issues, Employment and Vocational Training proposes that the Austrian and Slovak category A boatmaster's certificates should be incorporated into an annex to RPN.

Consequently, Annexes D1, D5, D6 and A5 of RPN must be amended.

Needs that must be addressed by the proposed amendments

The proposed amendment is designed to update Annexes D1, D5 and D6 of RPN by including the new German, Austrian, Slovak and Czech boatmaster's certificates and the new Slovak and Czech radar certificates.

The new German model certificates have been valid since 9 March 2015.

The Slovak boatmaster's certificate and radar certificate have been valid since 1 November 2014. Those certificates that are currently valid will remain so until their date of expiry.

The Czech boatmaster's certificate and radar certificate have been valid since 15 March 2015. Those certificates that are currently valid will remain so until 31 December 2017 and must be replaced by that date at the latest.

The holders of category A boatmaster's certificates issued by the Republic of Austria or the Slovak Republic are not permitted to navigate on the Rhine, but holders of category B boatmaster's certificates are authorized to do so.

The administrations concerned must be in a position to check certificates on the basis of updated regulations.

Possible alternatives to the amendments proposed

None.

Consequences of the proposed amendments

This amendment does not have any negative consequences.

Consequences of a rejection of the proposed amendments

The inspection authorities of the CCNR member States must be in a position to determine whether presented certificates are indeed recognized on the Rhine. The rejection of these amendments would result in a situation of legal insecurity and would make it difficult for the administrations concerned to check certificates.

Moreover, should the modifications introduced by the Slovak Republic and the Czech Republic be rejected, CCNR would call into question its commitments arising from the administrative arrangements for boatmaster's certificates and radar certificates signed with those two States.

Resolution

The Central Commission,

Acting on a proposal from its Committee on Social Issues, Employment and Vocational Training,

Following consultation with the group of experts on the updating of qualifications,

Adopts the amendments to Annexes D1, D5, D6 and A5 of the Regulations for Rhine Navigation Personnel annexed to the present resolution.

The amendments contained in the annex shall enter into force on 1 August 2015.¹

¹ Note from the secretariat: These annexes can be consulted at the following website: www.ccr-zkr.org/files/documents/resolutions/ccr2015_If.pdf (French, pp. 55-68).

Annex III

Protocol 11: Possibility of recognition of third State logbooks

Amendment of article 3.13 and Annex A1 of RPN and incorporation of an Annex A 1a

Resolution

The Central Commission,

Wishing to also make possible the recognition of logbooks that are equivalent to the logbooks in the meaning of the Regulations for Rhine Navigation Personnel, as long as such third States guarantee the reciprocity of such recognition,

Reaffirming its desire to simplify the obligations of skippers in order to promote the integration and development of the European inland navigation market,

Acting on a proposal from its Committee on Social Issues, Employment and Vocational Training,

- Adopts the amendment to the Regulations for Rhine Navigation Personnel contained in the annex to this resolution;
- Assigns to its Committee on Social Issues, Employment and Vocational Training the task of approving and amending the list of authorities competent for the issuance of logbooks valid on the Rhine. Should any disagreement arise within the Committee, the texts shall be submitted to the Central Commission.

The new requirements shall enter into force on 1 July 2016.

Annex to Protocol 11

Purpose of the amendment

Needs that must be addressed by the proposed amendments:

It was recently noted that there are a number of logbooks in circulation which conform to the CCNR model but which were not issued by the competent authority of a Rhine State or Belgium.

In accordance with article 3.13, paragraph 1, of RPN, the initial logbooks within the scope of RPN can be issued only by the competent authorities of the Rhine States and Belgium. Such logbooks must be in compliance with the model contained in Annex A1 of RPN.

Authorities of other States issue logbooks that conform to the model contained in Annex A1 of RPN, but they are not currently valid on the Rhine, meaning that vessels must now have two essentially identical logbooks.

This is at variance with the regulatory goal of having one single logbook per vessel in order to avoid abuse. A similar situation applies in the case of subsequent logbooks.

Abuse of the system could be avoided at least for those member States of CCNR and of the European Union which issue logbooks that conform to the CCNR model.

Possible alternatives to the planned amendments:

One possible solution would be the introduction and harmonization of logbooks at the European level. The planned amendment of RPN and the recognition by CCNR of third State logbooks are a first step in that direction.

Consequences of the amendments:

This amendment would reduce the administrative workload of public administrations and the private sector, prevent abuses from occurring and simplify checks.

Moreover, the publication in electronic form of the lists of competent authorities would reduce administrative costs and ensure improved updating, as the competent committee could approve amendments.

Consequences of the rejection of the proposed amendments:

The rejection of this amendment would mean that third State vessels would, as in the past, have to carry several logbooks, opening up even more possibilities for abuse and perpetuating disproportionate administrative constraints.

Amendment of RPN

The following paragraphs are inserted into article 3.13, paragraph 1:

"For vessels with a community certificate recognized on the Rhine in accordance with Annex O of RVBR, a logbook issued by the competent authority of a third State and recognized by CCNR may be kept on board in lieu of one issued by the competent authority of a Rhine State or Belgium. Recognized logbooks shall be kept in at least one of the official languages of CCNR.

The authorities competent to issue logbooks valid on the Rhine are listed in Annex A 1a."

2. Annex A 1a, below, is inserted after Annex A1:

Annex A 1a

Authorities competent to issue logbooks valid on the Rhine.

State

Authority

Period of issue

The list of competent authorities is published by CCNR on its website at www.ccr-zkr.org.

Annex IV

Protocol 12: Recognition of certificates of knowledge of sectors issued by third States

Amendment of the administrative arrangement relating to the boatmaster's certificate and the radar certificate concluded with the Federal Ministry for Transport, Innovation and Technology of the Republic of Austria

Resolution

The Central Commission,

Acting on a proposal from the group of experts on the updating of qualifications (MQ/G) and the Committee on Social Issues, Employment and Vocational Training, notes with satisfaction the amendment to the administrative arrangement relating to the boatmaster's certificate and the radar certificate concluded with the Austrian authorities,

Orders its Secretary-General, on behalf of CCNR, to sign the amendment to the administrative arrangement, the German, French and Dutch language versions of which are contained in the annex to this document.

Annex to Protocol 12

1. Amendment of the administrative arrangement relating to the boatmaster's certificate and the radar certificate concluded with the Federal Ministry for Transport, Innovation and Technology of the Republic of Austria

The Central Commission for the Navigation of the Rhine and the Federal Ministry for Transport, Innovation and Technology of the Republic of Austria amend the administrative arrangement relating to the boatmaster's certificate and the radar certificate concluded on 27 May 2011, as follows:

• Article 1, paragraph 1, final dash, reads as follows:

"In order to navigate on the sectors of the Danube listed in Annex 1, the holder must present a certificate in conformity with Annex 2, issued by the competent Austrian authority and proving that he/she has completed 8 runs downstream and 8 runs upstream on the sector in question, or a certificate of knowledge of sector for the Danube issued by a member State of the Danube Commission which covers the sectors in question, in accordance with the 'Recommendations of the Danube Commission on certificates of knowledge of sectors"

• Article 2, paragraph 2, reads as follows:

"The competent Austrian authority for issuing Austrian captain's licences, the certificate in conformity with Annex 2 (*until 30 June 2014*), the certificate of knowledge of sector referred to in Annex 2a (as from 1 July 2014) and the mention relating to radar navigation is:"

• Annex 1 reads as follows:

"List of sectors of Austrian waterways on which knowledge of sector is required

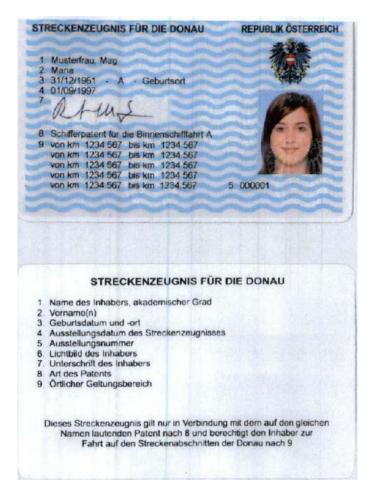
On the Danube:

- From Tiefenbach to Sank Nikola an der Donau;
- From Melk to Krems;
- From Wien-Freudenau to the border between Austria and Slovakia."

A new Annex 2a is inserted:

"Model Austrian certificate of knowledge of sector for the Danube (as from 1 July 2014)

Model



Strasbourg, ... 201...

Hans VAN DER WERF Secretary-General Central Commission for the Navigation of the Rhine Dipl.-Ing. Reinhard VORDERWINKLER Supreme Navigation Authority Ministry for Transport, Innovation and Technology of the Republic of Austria