

## Economic Commission for Europe

### Inland Transport Committee

18 December 2015

#### Working Party on the Transport of Dangerous Goods

#### Joint Meeting of Experts on the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) (ADN Safety Committee)

#### Twenty-eighth session

Geneva, 25 - 29 January 2016

Item 5 (b) of the provisional agenda

#### Proposals for amendments to the Regulations annexed to ADN

#### Other proposals

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## Liquefied Natural Gas (LNG) as fuel for the propulsion installation

### Transmitted by Switzerland and the Netherlands

## I Introduction

1. In its report ECE/TRANS/WP.15/AC.2/56 §3 of the meeting in August 2015, the ADN Safety Committee expressed its support to the Dutch proposal to organize a working group on the use of Liquefied Natural Gas (LNG) for the propulsion of vessels, as soon as the final legislative proposals from the Central Committee for the Navigation of the Rhine (CCNR) were available.
2. In ECE/TRANS/WP.15/AC.2/50 §31 the ADN Safety Committee accepted the joint proposal from Switzerland and the Netherlands to set up an informal working group which would propose amendments to ADN to ensure standardized procedures for loading and unloading of LNG.
3. On 3 December 2015, the CCNR adopted its final proposals on the use of LNG as fuel for the propulsion installation on board of inland vessels. One week earlier, on 26 November 2015, the same technical requirements were adopted by the Comité Européen pour l'Elaboration de Standards dans le Domaine de Navigation Intérieure (CESNI) in its European Standard of Technical Requirements for Inland Navigation (ESTRIN) which is expected to come into force between 2016 and 2018. Furthermore, it is expected that in the spring of 2016, the EU will amend technical Directive 2006/87 in which the EU will introduce a dynamic reference to the ESTRIN technical requirements.
4. The CCNR adopted a new Chapter 8b to the Rhine Vessel Inspection Regulations (RVIR) concerning the use of fuels for the propulsion installation with a flashpoint below 55 °C. Regarding the use of LNG as fuel for the propulsion a specific Annex T was adopted which governs all the technical details for the use of LNG on board of an inland vessel. This Annex also includes an article 2.8.6 which prescribes a standardized norm (EN 1474) for connections which are used during bunkering of LNG. Finally, in Annex I a specific sign is prescribed which ship-owners have to fix to the vessel if it uses LNG as fuel for the propulsion installation.

5. Since the ADN Administrative Committee granted several inland vessels carrying dangerous goods a temporarily derogation to use LNG as fuel for the propulsion installation<sup>1</sup>, it is desirable to adjust the Regulations annexed to ADN with the recent legislative developments within the CCNR and CESNI. There are several options available to adjust the Regulations annexed to ADN, so LNG can be used as fuel for the propulsion installation on a permanent basis. The options are described in II.

## II. Options

6. Currently the use of LNG is prohibited in the Regulations annexed to ADN because the flashpoint of LNG is below 55 °C (or 60 °C in 9.2.0.31.1 ADN). The relevant articles can be found in 7.X.3.31(.1), 9.1.0.31.1 and 9.3.X.31.1 ADN. The first option would be simply to delete these articles of ADN. The aim of ADN is to ensure the safe transport of dangerous goods; the requirements for fuels on inland vessels should be ensured by general technical legislation applicable to inland vessels, like the RVIR and ESTRIN. The disadvantage of this option is that the legislation no longer prohibits other fuels than regular gasoline and LNG.

7. The second option is to add to the abovementioned articles a dynamic reference to RVIR and/or ESTRIN. The general prohibition to use fuels with a flashpoint below 55 °C could be supplemented with an exception that inland vessels however can use LNG when the installation meets the requirements which are prescribed in RVIR and/or ESTRIN. This ensures harmonisation of legislation governing the use of LNG as fuel on inland vessels. Member States of ADN which are not member of the CCNR can elaborate within the framework of CESNI on the further development of LNG as fuel in inland navigation.

8. The third option is to copy the adopted legislation in the Regulations annexed to ADN. This ensures that the new regulation, in all its aspects, is implemented in all ADN Member States. The risk however is that, after a few amendments to the LNG legislation, differences appear between the relevant international agreements.

## III. Proposal

9. The ADN Safety Committee is invited to consider the matter at its next meeting and to suggest one of the described options which would allow LNG permanently as fuel on inland vessels carrying dangerous goods.

10. The Dutch delegation is willing to organize an informal working group in the spring of 2016 to prepare the implementation of “LNG as fuel” in the Regulations annexed to ADN. Besides the outcome of the discussion of the ADN Safety Committee, the informal working group can consider as well the results of the trials with LNG as propulsion. Furthermore, this informal working group could consider whether it is still necessary to propose amendments to ADN to ensure standardized procedures for bunkering, loading and unloading of LNG or whether this is sufficiently arranged in the new legislative texts.

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<sup>1</sup> <http://www.unece.org/trans/danger/publi/adn/equivalences-derogations.html>