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Working Party on Inland Water Transport

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Item 7(b) of the provisional agenda

Standardization of Technical and Safety Requirements in Inland Navigation: Recommendations on Harmonized Europe-Wide Technical Requirements for Inland Navigation Vessels (resolution No. 61, revision 2)

Recommendations from the Working Group CESNI/PT/FC

Transmitted by CESNI

In accordance with its work programme, CESNI develops vessel technical requirements to allow the use of alternatives fuels. The main objective is to permit the use of methanol and hydrogen (compressed/liquefied), either in fuel cells or combustion engines, as conventional technologies for the propulsion of inland vessels. Other technologies such as compressed natural gas or hydrogen carriers will be addressed in the coming years. By establishing the legal certainty for these new technologies, CESNI wants to contribute to the achievements of the emission reduction targets, as set out in the Mannheim Declaration and the European Green deal.

In practice, the Working Group CESNI/PT/FC prepares proposals to amend the European Standard laying down Technical Requirements for Inland Navigation vessels (ES-TRIN). As the latter is focused on the design and equipment of inland vessels, it does not include operational requirements which are covered by international and national police regulations. Nevertheless, the Working Group CESNI/PT/FC has identified few proposals which could feed in the development of police requirements for the use of alternatives fuels and has asked the CESNI Secretariat to share with the different competent bodies in Europe.

The summary of the recommendations of the Working Group addressed to regulatory and standardization bodies involved in charge of the development of the police requirements at European level are contained in the annex. Although these recommendations only relate to the methanol storage, CESNI Secretariat does not exclude similar inputs for hydrogen at later stage.

Annex – Summary of recommendations

No	Recommendation	Meeting Minutes
1	<p><i>The final draft methanol rules include less stringent requirements for parts of the methanol system including the tanks of the vessel which are in permanent contact with water. In case of leakage through these parts, it will lead to rapid dilution in the water and no toxic vapours for the crew. In other words, the final draft rules foresee that the secondary barrier of the tanks can be omitted on those surfaces bound by shell plating below the lowest possible waterline.</i></p> <p><i>CESNI/PT/FC approved a definition as follows: "1.1.14 Lowest possible waterline: the waterline corresponding to the displacement of the craft without ballast and without load." But it also wished to add the following in the explanatory notices of ES-TRIN: "the lowest possible waterline must take into account the different loading conditions of the vessel, notably the impact on the vessel's trim."</i></p> <p><i>The Secretariat was invited to draw the attention of the bodies in charge of police regulations on this topic. Indeed, police regulations might address the need to take into account the different loading conditions of the vessel, notably the impact on the vessel's trim.</i></p>	<p>June 2022 PT/FC(22)m 23, item 1.1.14</p>
2	<p><i>The final draft methanol rules include the following "2.2.3.1 Inerted methanol fuel tanks shall be inerted at all times during normal operation."</i></p> <p><i>Although this provision looks like an operational requirement, CESNI/PT/FC decided to keep it in ES-TRIN. The Secretariat was invited to draw the attention of the bodies in charge of police regulations on this topic. Indeed, police regulations might provide for measures to keep the tanks inerted at all times.</i></p>	<p>June 2022 PT/FC(22)m 23, item 2.2.3.1</p>
3	<p><i>The final draft methanol rules include the following "2.2.2.2 Methanol fuel tanks and their piping shall be designed to prevent electrostatic charges. Independent fuel tanks shall be electrically bonded to the craft's structure."</i></p> <p><i>The IWT platform has provided the following operational advice. When filling an empty tank too fast, electrostatic charge due to too high flow velocities might occur. Therefore, the bunkering velocity shall be low until the tank bottom is covered. This echoes the ISGINTT provisions. Reference was also made to the provisions of TRBS 2153 (Vermeidung von Zündgefahren infolge elektrostatischer Aufladungen).</i></p> <p><i>The Secretariat was invited to draw the attention of the bodies in charge of police regulations on this topic. Indeed, police regulations might address the need to regulate the bunkering velocity.</i></p>	<p>April 2022 PT/FC(22)m 17, item 2.2.2.2</p>
4	<p><i>The final draft methanol rules include the following "2.2.9.6 It shall be possible to safely ventilate overboard the spaces where methanol fuel may accumulate to ensure a safe atmosphere when entering the spaces is necessary."</i></p> <p><i>In response to a question from Belgium, CESNI/PT/FC examined the compatibility between ADN rules (notably 7.2.3.1) and the draft provision 2.2.9.6. No contradiction was observed; however, ADN provides very detailed rules for the maintenance. For instance, a measurement with a toximeter shall be performed, and if it complies with mandatory levels, it is possible to enter a cofferdam where vapours of methanol may accumulate. In other words, ADN is going beyond the provisions of 2.2.9.6, but it is also because the quantity of methanol can be significantly higher.</i></p> <p><i>The Secretariat was invited to draw the attention of the bodies in charge of police regulations on this topic. Indeed, police regulations might address the issue of safe maintenance, by analogy with the ADN.</i></p>	<p>January 2022 PT/FC(21) 18 rev. 4</p>

5	<p>The final draft methanol rules include the following “2.2.13.2.3 Provisions shall be made that the bunkering can be supervised and stopped at any time. Overfill alarm and automatic shutdown shall be indicated.”</p> <p>The Secretariat was invited to draw the attention of the bodies in charge of police regulations on this topic. Indeed, police regulations might address the supervision and emergency stop of the bunkering.</p>	<p>December 2021 PT/FC(21)m 40, item 4.2</p>
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Notes:

Final draft fuel cell rules: CESNI (22) 5 rev. 1 (= draft ES-TRIN 2023)

Final draft methanol rules: CESNI/PT/FC (22) 7 rev. 3