

## **Economic Commission for Europe**

### **Inland Transport Committee**

21 January 2016

#### **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 4 (e) of the provisional agenda

**Implementation of the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)  
Matters related to classification societies**

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## **Reference to the ADN in the Class Rules**

**Transmitted by the Recommended ADN Classification Societies**

<p><b><u>Request to the Recommended ADN Classification Societies</u></b></p> <p>Source : Doc WP15-AC2-25-inf12</p>		<p>Reference to <b>Bureau Veritas</b> Rules and Regulations</p>	<p>Reference to <b>Germanischer Lloyd (2011)</b> Rules and Regulations</p>	<p>Reference to <b>DNV-GL (2016)</b> Rules and Regulations</p>	<p>Reference to <b>Lloyd's Register</b> Rules and Regulations</p>	<p>Reference to <b>RINA</b> Rules and Regulations</p>	<p>Reference to <b>Russian River Register</b> Rules and Regulations</p>	<p>Reference to <b>Russian Maritime Register of Shipping</b> Rules and Regulations</p>	<p>Reference to <b>Shipping River of Ukraine</b> Rules and Regulations</p>
<p><u>INF-12/Item 8 :</u></p> <p>References to class approval based on class rules</p>	<p>Do you have Class Rules ?</p> <p>“ <i>The proposers of the document &lt;INF-12&gt; would like to request the Recommended ADN Classification Societies to verify whether the different classification societies do indeed have class rules for the ADN provisions mentioned under paragraph. In case these are not available, they are requested to provide the ADN Committee with a timeframe within which they will be developed.</i>”</p>								
<p><u>INF-12/Item 9 :</u></p> <p>References to class approval based on requirements other than class rules</p>	<p>Which standards/regulations are used ?</p> <p>“<i>For the provisions where reference is made to class approval based on requirements other than class rules they are requested to specify which standards or regulations are used to determine whether arrangements are acceptable to the classification.</i>”</p>								

ADN									
1.2.1. Highest class	<p>may be assigned to a vessel when:</p> <ul style="list-style-type: none"> <li>– the hull, inclusive of rudder and steering gear and equipment of anchors and chains, complies with the rules and regulations of a recognized classification society and has been built and tested under its supervision;</li> <li>– the propulsion plant, together with the essential auxiliary engines, mechanical and electrical installations, have been made and tested in conformity with the rules and regulations of this classification society, and the installation has been carried out under its supervision, and the complete plant was tested to its satisfaction on completion;</li> </ul>	YES	<p>Hull: + 100 A5 IN(X.X) ...</p> <p>Machinery: (+) MC IN</p> <p>Rules for Inland Navigation Vessels Part 2, Chapter 1</p>	<p>Main class: + 1 A5 IN(X.X) ...</p> <p>Rules for Inland navigation vessels Part 1, Chapter 2</p>	<p>Class notations are included in Part 1, Chapter 2.</p>	<p>YES</p> <p>Class Notations: Part A Chapter 1</p>	RRR Rules	YES	YES
1.2.1. Opening pressure	<p>Opening pressure means the pressure referred to in a list of substances in Chapter 3.2, Table C at which the high velocity vent valves open. For pressure tanks the opening pressure of the safety valve shall be established in accordance with the requirements of the competent authority or a recognized classification society;</p>	YES	<p>The opening pressure is given in the class sign and at the first page of our vessels substance list.</p> <p>Rules for Inland navigation vessels Part 2, Chapter 1, Section 2, B,</p>	<p>The opening pressure is given in the class sign and at the first page of our vessels substance list.</p> <p>Rules for Inland navigation vessels Part 1, Chapter 2, Section 2, Table</p>	<p>A cargo list is issued for each classed tanker vessel. This list is based on the questionnaire as filled in by the attending surveyor. The info of this questionnaire is used as input in the cargo list software</p>	<p>YES</p> <p>Part E Chapter 2 Appendix 1</p> <p>List created by software considering input from surveyor and plan approval</p>	RINS <sup>1</sup>	<p>Chapter VII</p> <p>“Rules for the classification and construction of inland and navigation ship (for European Inland Waterways)”, 2012.</p>	YES

			Table 2.5	2	'Chemix', with which the cargo list is generated. The list can be generated in 4 languages.				
<b>PART 7 REQUIREMENTS CONCERNING LOADING, CARRIAGE, UNLOADING AND HANDLING OF CARGO</b>  <b>Chapter 7.2 Tank vessels</b>									
<b>7.2.2.0</b>	<b>NOTE 2:</b> The design pressure and the test pressure of cargo tanks shall be indicated in the certificate of the recognised classification society prescribed in 9.3.1.8.1 or 9.3.2.8.1 or 9.3.3.8.1.	YES	The design pressure and test pressure are part of our class sign for tankers and will be mentioned at the class certificate. For the corresponding calls sign is given in Rules for Inland Navigation Vessels Part. 2, Chapter 1, Section 2, B, 4.2.1	The design pressure and test pressure are part of our class sign for tankers and will be mentioned at the class certificate. For the corresponding calls sign is given in Rules for Inland Navigation Vessels Part. 1, Chapter 2, Section 2, 4.2.1	The design pressure is included in the class notation. As the test pressure is related to the design pressure, this isn't included.	YES		YES	YES
<b>7.2.2.0</b>	<b>NOTE 3:</b> Where a vessel carries cargo tanks with different valve-relief pressures, the relief pressure of each tank shall be indicated in the certificate of approval and the design and test	YES	If a vessel has different design pressures for the cargo tanks the pressures a given at the first pages of the vessels	If a vessel has different design pressures for the cargo tanks the pressures a given at the first pages of the vessels	In such cases this is done.  But it's very rare that tanks have different design pressures.	YES		YES	YES

	pressures of each tank shall be indicated in the certificate of the recognised classification society.		substance list.	substance list.					
7.2.2.0.1	<b>NOTE:</b> The substances accepted for carriage in the individual vessel are listed in the vessel substance list to be drawn up by the recognised classification society (see 1.16.1.2.5).	YES	DNV GL issue vessels substance lists as requested in ADN.	DNV GL issue vessels substance lists as requested in ADN.	See above on 7.2.2.0.	YES		YES	YES
<b>7.2.2.6 Gas detection system</b>	The system shall have been approved by the competent authority or a recognized classification society.	YES	DNV GL has a special form for surveying gas detection system.	DNV GL has a special form for surveying gas detection system.	Gas detection is surveyed by LR during special surveys and intermediate surveys. A statement of compliance is issued.	YES		YES	YES
<b>PART 8 PROVISIONS FOR VESSEL CREWS, EQUIPMENT, OPERATION AND DOCUMENTATION</b>  <b>Chapter 8.1 General requirements applicable to vessels and equipment</b>									
<b>8.1.2.3 c)</b>	the stability booklet and the proof of the loading instrument having been approved by the recognized	Yes	Stability booklet will be approved on the basis of our Rules for	Stability booklet will be approved on the basis of our Rules for	Stability booklets for new vessels are being approved.		RRR Rules (RTSC <sup>2</sup> , RINS)	Chapter IV	YES

	classification society;		Inland Navigation Vessels Part. 2, Chapter 4, Section 3, B, 7 and the ADN requirements. The loading instruments will be approved on the basis of our Rules Part 11, Chapter 7 - Guidelines for Loading Computer Systems.	Inland navigation vessels Part. 6, Chapter 1, Section 2, 7 and the ADN requirements. The loading instruments will be approved on the basis of GL Rules Part 11, Chapter 7 - Guidelines for Loading Computer Systems.	For existing vessels the booklets which were previously approved by the national authorities are being checked at class renewal. Also the computer loading instrument is being approved at class renewal.	YES			
<b>PART 9</b> <b>RULES FOR CONSTRUCTION</b>  <b>Chapter 9.1</b>  <b>Rules for construction of dry cargo vessels</b>									
9.1.0.88.1	Double-hull vessels intended to carry dangerous goods of Classes 2, 3, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, 7, 8 or 9 except those for which label No. 1 is prescribed in column (5) of Table A of Chapter 3.2, in quantities exceeding those referred to in 7.1.4.1.1 shall be built or transformed under survey of a recognised classification society in accordance with the rules established by that classification	Yes	DNV GL has defined the class notations "Double hull", "ADN" and "DG" to demonstrate that a vessel is in line with these requirements. For additional information to the class notations see Rules for Inland	DNV GL has defined the class notations "Double hull", "ADN" and "DG" to demonstrate that a vessel is in line with these requirements. For additional information to the class notations see Rules for Inland	Vessels where this is applicable will be surveyed and a statement that the vessel complies with the Rules will be issued upon completion.	YES  Part E Chapter 2	RRR Rules	Chapter II	YES

	society to its highest class. This shall be confirmed by the classification society by the issue of an appropriate certificate.		Navigation Vessels Part. 2, Chapter 1, Section 2, B, Table 2.5.	Navigation Vessels Part. 1, Chapter 2, Section 2, Table 2.						
9.1.0.88.3	Future conversions and major repairs to the hull shall be carried out under survey of this classification society.	YES	No reference in the Rules.	No reference in the Rules.	This is done and confirmed by a statement that the conversion is done according the Rules.	As confirm of class certificate	YES	RRR Rules	Chapter I	YES
9.1.0.91.2	The distance between the sides of the vessel and the longitudinal bulkheads of the hold shall be not less than 0.80 m. Regardless of the requirements relating to the width of walkways on deck, a reduction of this distance to 0.60 m is permitted, provided that, compared with the scantlings specified in the rules for construction published by a recognised classification society, the following reinforcements have been made: .....	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, D, 5.	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 4, 5.	Part 4, Chapter 1 includes the requirements for the construction of dry cargo ships.	YES	RRR Guidelines <sup>3</sup>	Chapter II	YES	
9.1.0.91.2	(c) The gangboards shall be supported by transverse bulkheads or cross-ties spaced not more than 32 m apart. As an alternative to compliance with the requirements of (c) above, a proof by calculation, issued by a recognised	YES	The required sufficient transverse strength is fulfilled when the design of the vessel fulfills the requirements of our Rules for	The required sufficient transverse strength is fulfilled when the design of the vessel fulfills the requirements of our Rules for	This is included in Part 4, Chapter 1, Section 12.3 to 12.5.	YES	RRR Guidelines	Chapter II	YES	

	classification society confirming that additional reinforcements have been fitted in the double-hull spaces and that the vessel's transverse strength may be regarded as satisfactory.		Inland Navigation Vessels Part. 2, Chapter 2, Section 5, B to E.	Inland navigation vessels Part. 3, Chapter 4, Section 2 to 5.					
9. 2. 0. 88. 1	<b>Classification</b> 9.2.0.88.1 Double-hull vessels intended to carry dangerous goods of Classes 2, 3, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, 7, 8 or 9 except those for which label No. 1 is prescribed in column (5) of Table A of Chapter 3.2, in quantities exceeding those referred to in 7.1.4.1, shall be built under survey of a recognised classification society in accordance with the rules established by that classification society to its highest class. This shall be confirmed by the classification society by the issue of an appropriate certificate.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, D, 3.2	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 4, 3.2.	This possibility is never being used. Seagoing vessel carrying dangerous goods are always already certified according legislation for seagoing ships. Additional certification has never been requested.	YES	RRR Rules	Chapter II	YES
9. 3. 1									
Rules for construction of type G tank vessels									
9. 3. 1. 8. 1	The tank vessel shall be built under survey of a recognised classification society in accordance with the rules established by	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 1, Section 2, B,	Rules for Inland navigation vessels Part. 1, Chapter 2, Section 2,	Part 4, Chapter 5 includes requirements for type G		Complies with RRR classification activity	YES	YES

	<p>that classification society for its highest class, and the tank vessel shall be classed accordingly. The vessel's highest class shall be continued. The classification society shall issue a certificate certifying that the vessel is in conformity with the rules of this section (classification certificate). The design pressure and the test pressure of cargo tanks shall be entered in the certificate. If a vessel has cargo tanks with different valve opening pressures, the design and test pressures of each tank shall be entered in the certificate. The classification society shall draw up a vessel substance list mentioning all the dangerous goods accepted for carriage by the tank vessel (see also 1.16.1.2.5).</p>		<p>Tables 2.4 and 2.5.  DNV GL issue vessels substance lists as requested in ADN.</p>	<p>Tables 1 and 2.  DNV GL issue vessels substance lists as requested in ADN.</p>	<p>tankers.</p>	<p>YES</p>			
<p>9. 3. 1. 8. 2</p>	<p>The cargo pump-rooms shall be inspected by a recognised classification society whenever the certificate of approval has to be renewed as well as during the third year of validity of the certificate of approval. The inspection shall</p>	<p>YES</p>	<p>Is requested in "ADN – Checklist for Inland Tankers / Pushed Tank Barges Type G/C/N" (F082) and will be confirmed by "Certificate about</p>	<p>Is requested in "ADN – Checklist for Inland Tankers / Pushed Tank Barges Type G/C/N" (F082) and will be confirmed by "Certificate about</p>	<p>This is surveyed during intermediate survey and special survey. A statement of compliance is issued.</p>	<p>YES</p>	<p>Complies with RRR classification activity</p>	<p>YES</p>	<p>YES</p>

	<p>comprise at least:</p> <ul style="list-style-type: none"> <li>- an inspection of the whole system for its condition, for corrosion, leakage or conversion works which have not been approved;</li> <li>- a checking of the condition of the gas detection system in the cargo pump-rooms.</li> </ul> <p>Inspection certificates signed by the recognised classification society with respect to the inspection of the cargo pump-rooms shall be kept on board. The inspection certificates shall at least include particulars of the above inspection and the results obtained as well as the date of the inspection.</p>		inspection of the cargo pump room" (F092)	inspection of the cargo pump room" (F092)					
9.3.1.8.3	<p>The condition of the gas detection system referred to in 9.3.1.52.3 shall be checked by a recognised classification society whenever the certificate of approval has to be renewed and during the third year of validity of the certificate of approval. A certificate signed by the recognised classification society shall be kept on board.</p>	YES	<p>Is requested in "ADN – Checklist for Inland Tankers / Pushed Tank Barges Type G/C/N" (F082) and will be confirmed by "Certificate about inspection of the gas detection system" (F093)</p>	<p>Is requested in "ADN – Checklist for Inland Tankers / Pushed Tank Barges Type G/C/N" (F082) and will be confirmed by "Certificate about inspection of the gas detection system" (F093)</p>	<p>Gas detection is surveyed by LR during special surveys and intermediate surveys. A statement of compliance is issued.</p>	YES	<p>Complies with RRR classification activity</p>	Chapter V	YES
9.3.1.11.2	<p>(a) In the cargo area, the hull shall be designed as follows:1</p>	YES	Rules for Inland Navigation	Rules for Inland navigation	Part 4, Chapter 5, Section 3		RRR Guidelines	Chapter II	YES

	<p>– as a double-hull and double bottom vessel. The internal distance between the sideplatings of the vessel and the longitudinal bulkheads shall not be less than 0.80 m, the height of the double bottom shall be not less than 0.60 m, the cargo tanks shall be supported by saddles extending between the tanks to not less than 20° below the horizontal centreline of the cargo tanks. Refrigerated cargo tanks shall be installed only in hold spaces bounded by double-hull spaces and double-bottom. Cargo tank fastenings shall meet the requirements of a recognised classification society; or</p>		Vessels Part. 2, Chapter 4, Section 3, C, 2.	vessels Part. 6, Chapter 1, Section 3, 2.	includes requirements for the cargo tanks including their fastenings.	YES			
9. 3. 1. 13. 3	<p>..... The proof of sufficient stability shall be shown for every operating, loading and ballast condition in the stability booklet, to be approved by the relevant classification society, which classes the vessel. If it is unpractical to pre-calculate the operating, loading and ballast conditions, a loading instrument approved by the recognised classification society</p>	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, C, 6.	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 3, 6.	Stability booklets for new vessels are being approved. For existing vessels the booklets which were previously approved by the national authorities are being checked at class renewal. Also the computer loading	YES	RRR Rules	Chapter IV	YES

	which classes the vessel shall be installed and used which contains the contents of the stability booklet.				instrument is being approved at class renewal.				
9.3.1.17.5	(b) The penetration of the shaft [Driving shafts of the bilge or ballast pumps]through the bulkhead shall be gastight and shall have been approved by a recognised classification society.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, A, 2.10.3	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 1, 2.10.3.	In Part 5, Chapter 13, Section 1.6.2 requirements on shaft penetrations are included.	YES	RRR Guidelines	Chapter XIV	YES
9.3.1.17.5	(d) Penetrations through the bulkhead between the engine room and the service space in the cargo area, and the bulkhead between the engine room and the hold spaces may be provided for electrical cables, hydraulic lines and piping for measuring, control and alarm systems, provided that the penetrations have been approved by a recognised classification society. The penetrations shall be gastight. Penetrations through a bulkhead with an "A-60" fire protection insulation according to SOLAS 74, Chapter II-2, Regulation 3, shall have an equivalent fire protection.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, A, 2.10.3	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 1, 2.10.3.	In Part 6, Chapter 2, Section 13.6.5 requirements on cables penetrating bulkheads are included.  In Part 5, Chapter 11, Section 1.2 requirements for piping systems penetrating bulkheads are included.	YES	RRR Rules (RINS)	Chapter XIV	YES
9.3.1.23.1	Cargo tanks and piping for loading and unloading shall comply with the provisions concerning	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4,	Rules for Inland navigation vessels Part. 6, Chapter 1,	Part 4, Chapter 5, Section 3 refers to cargo tanks of type G		RRR Guidelines	Yes	YES

	pressure vessels which have been established by the competent authority or a recognised classification society for the substances carried.		Section 3, C, 1.2.2	Section 3, 1.2.2.	tankers.  In Part 5, Chapter 9 and Chapter 13 these requirements are further specified.	YES			
9. 3. 1. 24. 1	Unless the entire cargo system is designed to resist the full effective vapour pressure of the cargo at the upper limits of the ambient design temperatures, the pressure of the tanks shall be kept below the permissible maximum set pressure of the safety valves, by one or more of the following means: (a) .....; (b) a system ensuring safety in the event of the heating or increase in pressure of the cargo. The insulation or the design pressure of the cargo tank, or the combination of these two elements, shall be such as to leave an adequate margin for the operating period and the temperatures expected; in each case the system shall be deemed acceptable by a recognized classification society	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, C, 1.3 and 3	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 3, 1.3 and 3.	Part 5, Chapter 13, Section 5.6 refers to these requirements.	YES	RRR Guidelines	Chapter VII "Rules for the classification and construction of inland navigation ships (for European Inland Waterways)"  Chapter VI "Rules for the classification and construction of chemical tankers"	YES

	and shall ensure safety for a minimum time of three times the operation period; (c) other systems deemed acceptable by a recognized classification society.								
9.3.1.24.2	The systems prescribed in 9.3.1.24.1 shall be constructed, installed and tested to the satisfaction of the recognized classification society. The materials used in their construction shall be compatible with the cargoes to be carried. For normal service, the upper ambient design temperature limits shall be: air: +30° C; water: +20° C.	YES	Rules for Seagoing Ships-Liquefied Gas Carriers I-Part 1, Chapter 6, Section 7; 7.1.2	Rules for Seagoing Ships-Liquefied Gas Carriers I-Part 1, Chapter 6, Section 7; 7.1.2 or RULES FOR CLASSIFICATION Ships, Part 5, Chapter 7, Section 7, 1.1.1	Part 5, Chapter 13, Section 5.6 refers to these requirements.  Part 2 is entirely on manufacturing, testing and certification of materials of construction.	YES	RRR Guidelines	Chapter VII "Rules for the classification and construction of inland navigation ships (for European Inland Waterways)"  Chapter VI "Rules for the classification and construction of chemical tankers"	YES
9.3.1.27.1	The refrigeration system referred to in 9.3.1.24.1 (a) shall be composed of one or more units capable of keeping the pressure and temperature of the cargo at the upper limits of the ambient design temperatures at the prescribed level. Unless another means of regulating cargo pressure and temperature deemed satisfactory by a recognized classification society	YES	Rules for Seagoing Ships-Liquefied Gas Carriers I-Part 1, Chapter 6, Section 7; 7.2	Rules for Seagoing Ships-Liquefied Gas Carriers I-Part 1, Chapter 6, Section 7; 7.2 or RULES FOR CLASSIFICATION Ships, Part 5, Chapter 7, Section 7	Part 5, Chapter 13, Section 5.6 refers to these requirements.		RRR Guidelines	Chapter VII "Rules for the classification and construction of inland navigation ships (for European Inland Waterways)"  Chapter VI "Rules for the classification and	YES

	<p>is provided, provision shall be made for one or more stand-by units with an output at least equal to that of the largest prescribed unit. A stand-by unit shall include a compressor, its engine, its control system and all necessary accessories to enable it to operate independently of the units normally used. Provision shall be made for a stand-by heat-exchanger unless the system's normal heat-exchanger has a surplus capacity equal to at least 25% of the largest prescribed capacity. It is not necessary to make provision for separate piping. Cargo tanks, piping and accessories shall be insulated so that, in the event of a failure of all cargo refrigeration systems, the entire cargo remains for at least 52 hours in a condition not causing the safety valves to open.</p>							construction of chemical tankers"	
9.3.1.27.9	<p>For all cargo systems, the heat transmission coefficient shall be determined by calculation. The correctness of the calculation shall be checked by means of a refrigeration test (heat balance test). This test shall be</p>		No Rules available	No Rules available	Part 5, Chapter 13, Sections 4.4.1 and 5.4.1 refer to these requirements.	YES	RRR Guidelines	Chapter VII "Rules for the classification and construction of inland navigation ships (for European Inland	YES

	performed in accordance with the rules set up by a recognised classification society.							Waterways)"  Chapter VI "Rules for the classification and construction of chemical tankers"	
9.3.1.27.10	A certificate from a recognized classification society stating that 9.3.1.24.1 to 9.3.1.24.3, 9.2.1.27.1 and 9.3.1.27.4 above have been complied with shall be submitted together with the application for issue or renewal of the certificate of approval.		Rules for Seagoing Ships-Liquefied Gas Carriers I-Part 1, Chapter 6, Section 7; 7.1.2	Rules for Seagoing Ships-Liquefied Gas Carriers I-Part 1, Chapter 6, Section 7; 7.1.2 or RULES FOR CLASSIFICATION Ships, Part 5, Chapter 7, Section 7.2.	Such statement of compliance will be issued.	YES	Execution of this paragraph is an internal matter of classification society	<same as above>	YES
<b>9.3.2 Rules for construction of type C tank vessels</b>									
9.3.2.8.1	The tank vessel shall be built under survey of a recognised classification society in accordance with the rules established by that classification society for its highest class, and the tank vessel shall be classed accordingly. The vessel's highest class shall be continued. The classification society shall issue a certificate certifying	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 1, Section 2, B, Table 2.4 and 2.5.  DNV GL issue vessels substance lists as requested in ADN.	Rules for Inland navigation vessels Part. 1, Chapter 2, Section 2, Tables 1 and 2.  DNV GL issue vessels substance lists as requested in ADN.	Part 4, Chapter 6 includes requirements for type C tankers.	YES	Complies with RRR classification activity	YES	YES

	<p>that the vessel is in conformity with the rules of this section (classification certificate).  The design pressure and the test pressure of cargo tanks shall be entered in the certificate.  If a vessel has cargo tanks with different valve opening pressures, the design and test pressures of each tank shall be entered in the certificate.  The classification society shall draw up a vessel substance list mentioning all the dangerous goods accepted for carriage by the tank vessel (see also 1.16.1.2.5).</p>								
9.3.2.8.2	<p>The cargo pump-rooms shall be inspected by a recognised classification society whenever the certificate of approval has to be renewed as well as during the third year of validity of the certificate of approval. The inspection shall comprise at least:  – an inspection of the whole system for its condition, for corrosion, leakage or conversion works which have not been approved;  – a checking of the condition of the gas detection system in the cargo pump-</p>	YES	<p>Is requested in "ADN – Checklist for Inland Tankers / Pushed Tank Barges Type G/C/N" (F082) and will be confirmed by "Certificate about inspection of the cargo pump room" (F092)</p>	<p>Is requested in "ADN – Checklist for Inland Tankers / Pushed Tank Barges Type G/C/N" (F082) and will be confirmed by "Certificate about inspection of the cargo pump room" (F092)</p>	<p>This is surveyed during intermediate survey and special survey. A statement of compliance is issued.</p>		<p>Complies with RRR classification activity</p>	YES	YES

	rooms. Inspection certificates signed by the recognised classification society with respect to the inspection of the cargo pump-rooms shall be kept on board. The inspection certificates shall at least include particulars of the above inspection and the results obtained as well as the date of the inspection.								
9.3.2.8.3	The condition of the gas detection system referred to in 9.3.2.52.3 shall be checked by a recognised classification society whenever the certificate of approval has to be renewed and during the third year of validity of the certificate of approval. A certificate signed by the recognised classification society shall be kept on board.	YES	Is requested in "ADN – Checklist for Inland Tankers / Pushed Tank Barges Type G/C/N" (F082) and will be confirmed by "Certificate about inspection of the gas detection system" (F093)	Is requested in "ADN – Checklist for Inland Tankers / Pushed Tank Barges Type G/C/N" (F082) and will be confirmed by "Certificate about inspection of the gas detection system" (F093)	Gas detection is surveyed by LR during special surveys and intermediate surveys. A statement of compliance is issued.	YES	Complies with RRR classification activity	Chapter V	YES
9.3.2.11.7	For double-hull construction with the cargo tanks integrated in the vessel's structure, the distance between the side wall of the vessel and the longitudinal bulkhead of the cargo tanks shall be not less than 1.00 m. A distance of 0.80 m may however be permitted, provided that, compared with	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, B, 3.2	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 2, 3.2.	Part 4, Chapter 4, Section 3.6.5 refers to these requirements.	YES	RRR Guidelines	Chapter II	YES

	<p>the scantling requirements specified in the rules for construction of a recognised classification society, the following reinforcements have been made:</p> <p>(a) 25% increase in the thickness of the deck stringer plate;</p> <p>(b) 15% increase in the side plating thickness;</p> <p>(c) Arrangement of a longitudinal framing system at the vessel's side, where depth of the longitudinals shall be not less than 0.15 m and the longitudinals shall have a face plate with the cross-sectional area of at least 7.0 cm<sup>2</sup>.</p> <p>(d) The stringer or longitudinal framing systems shall be supported by web frames, and like bottom girders fitted with lightening holes, at a maximum spacing of 1.80 m. These distances may be increased if the longitudinals are strengthened accordingly.</p>								
9.3.2.13.3	<p>...</p> <p>The proof of sufficient stability shall be shown for every operating, loading and ballast condition in the stability booklet,</p>	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, B, 7	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 2, 7.	Stability booklets for new vessels are being approved. For existing vessels the booklets which	YES	RRR Rules	Chapter IV	YES

	to be approved by the relevant classification society, which classes the vessel. If it is unpractical to pre-calculate the operating, loading and ballast conditions, a loading instrument approved by the recognised classification society which classes the vessel shall be installed and used which contains the contents of the stability booklet.				were previously approved by the national authorities are being checked at class renewal. Also the computer loading instrument is being approved at class renewal.				
9.3.2.17.5	(b) The penetration of the shaft through the bulkhead shall be gastight and shall have been approved by a recognised classification society.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, A, 2.10.3	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 1, 2.10.3.	In Part 5, Chapter 13, Section 1.6.2 requirements on shaft penetrations are included.	RRR Rules RRR Guidelines	YES	YES	
9.3.2.17.5	(d) Penetrations through the bulkhead between the engine room and the service space in the cargo area and the bulkhead between the engine room and the hold spaces may be provided for electrical cables, hydraulic and piping for measuring, control and alarm systems, provided that the penetration have been approved by a recognized classification society. The penetrations shall be gastight. Penetrations through	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, A, 2.10.3	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 1, 2.10.3.	In Part 6, Chapter 2, Section 13.6.5 requirements on cables penetrating bulkheads are included.  In Part 5, Chapter 11, Section 1.2 requirements for piping systems penetrating bulkheads are	RRR Rules RRR Guidelines	YES	YES	

	a bulkhead with an “A-60” fire protection insulation according to SOLAS 74, Chapter II-2, Regulation 3, shall have an equivalent fire protection.				included.				
9.3.2.23.5	The procedure for pressure tests shall comply with the provisions established by the competent authority or a recognised classification society.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 1, Section 3, C, 2.1.10	Rules for Inland navigation vessels Part. 7, Chapter 1, Section 3, 2.1.10.	Testing procedures are included in Part 1, Chapter 3, Section 6.3.	YES	RTSC	YES	YES
<b>9.3.3</b>									
<b>Rules for construction of type N tank vessels</b>									
9.3.3.8.1	The tank vessel shall be built under survey of a recognised classification society in accordance with the rules established by that classification society for its highest class, and the tank vessel shall be classed accordingly. The vessel’s class shall be continued. The classification society shall issue a certificate certifying that the vessel is in conformity with the rules of this section (classification certificate). The design pressure and the test pressure of cargo tanks shall be entered in the certificate.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 1, Section 2, B, Table 2.4 and 2.5.  DNV GL issue vessels substance lists as requested in ADN.	Rules for Inland navigation vessels Part. 1, Chapter 2, Section 2, Tables 1 and 2.  DNV GL issue vessels substance lists as requested in ADN.	Part 4, Chapter 6 includes requirements for type N tankers.	YES	Complies with RRR classification activity	YES	YES

	<p>If a vessel has cargo tanks with different valve opening pressures, the design and test pressures of each tank shall be entered in the certificate. The classification society shall draw up a vessel substance list mentioning all the dangerous goods accepted for carriage by the tank vessel (see also 1.16.1.2.5).</p>								
9.3.3.8.2	<p>The cargo pump-rooms shall be inspected by a recognised classification society whenever the certificate of approval has to be renewed as well as during the third year of validity of the certificate of approval. The inspection shall comprise at least: – an inspection of the whole system for its condition, for corrosion, leakage or conversion works which have not been approved; – a checking of the condition of the gas detection system in the cargo pump-rooms. Inspection certificates signed by the recognised classification society with respect to the inspection of the cargo pump-rooms shall be kept on board. The inspection</p>	YES	<p>Is requested in "ADN – Checklist for Inland Tankers / Pushed Tank Barges Type G/C/N" (F082) and will be confirmed by "Certificate about inspection of the cargo pump room" (F092)</p>	<p>Is requested in "ADN – Checklist for Inland Tankers / Pushed Tank Barges Type G/C/N" (F082) and will be confirmed by "Certificate about inspection of the cargo pump room" (F092)</p>	<p>This is surveyed during intermediate survey and special survey. A statement of compliance is issued.</p>	YES	<p>Complies with RRR classification activity</p>	YES	YES

	certificates shall at least include particulars of the above inspection and the results obtained as well as the date of the inspection.								
9.3.3.8.3	The condition of the gas detection system referred to in 9.3.3.52.3 shall be checked by a recognised classification society whenever the certificate of approval has to be renewed and during the third year of validity of the certificate of approval. A certificate signed by the recognised classification society shall be kept on board.	YES	Is requested in "ADN – Checklist for Inland Tankers / Pushed Tank Barges Type G/C/N" (F082) and will be confirmed by "Certificate about inspection of the gas detection system" (F093)	Is requested in "ADN – Checklist for Inland Tankers / Pushed Tank Barges Type G/C/N" (F082) and will be confirmed by "Certificate about inspection of the gas detection system" (F093)	Gas detection is surveyed by LR during special surveys and intermediate surveys. A statement of compliance is issued.	YES	Complies with RRR classification activity	CHAPTER V	YES
9.3.3.13.3	... The proof of sufficient stability shall be shown for every operating, loading and ballast condition in the stability booklet, to be approved by the relevant classification society, which classes the vessel. If it is unpractical to pre-calculate the operating, loading and ballast conditions, a loading instrument approved by the recognised classification society which classes the vessel shall be installed and used which contains the contents of the	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, B, 7	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 2, 7.	Stability booklets for new vessels are being approved. Also the computer loading instrument is being approved for new vessels.  For existing vessels a transitional provision is applicable, so this isn't observed at surveys.	YES	RRR Rules	Chapter IV	YES

	stability booklet.								
9.3.3.17.5	(b) The penetration of the shaft through the bulkhead shall be gastight and shall have been approved by a recognised classification society.	YES				YES			
9.3.3.17.5	(d) Penetrations through the bulkhead between the engine room and the service space in the cargo area and the bulkhead between the engine room and the hold spaces may be provided for electrical cables, hydraulic lines and piping for measuring, control and alarm systems, provided that the penetrations have been approved by a recognised classification society. The penetrations shall be gastight. Penetrations through a bulkhead with an "A-60" fire protection insulation according to SOLAS 74, Chapter II-2, Regulation 3, shall have an equivalent fire protection.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, A, 2.10.3	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 1, 2.10.3.	In Part 6, Chapter 2, Section 13.6.5 requirements on cables penetrating bulkheads are included.  In Part 5, Chapter 11, Section 1.2 requirements for piping systems penetrating bulkheads are included.	YES	RRR Rules  RRR guidelines	YES	YES
9.3.3.23.5	The procedure for pressure tests shall comply with the provisions established by the competent authority or a recognised classification society.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 1, Section 3, C, 2.1.10	Rules for Inland navigation vessels Part. 7, Chapter 1, Section 3, 2.1.10.	Testing procedures are included in Part 1, Chapter 3, Section 6.3.	YES	Complies with RRR classification activity	YES	YES

9.3.4 Alternative constructions									
9.3.4.1.4	When a vessel is built in compliance with this section, a recognised classification society shall document the application of the calculation procedure in accordance with 9.3.4.3 and shall submit its conclusions to the competent authority for approval. The competent authority may request additional calculations and proof.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 1	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 1.	The calculations are approved by Lloyd's Register. As we usually act as competent authority this info isn't submitted to the Dutch national authorities.	YES	NO	According to "Rules for the classification and construction of inland navigation ships (for European Inland Waterways)" vessels are to be designed in compliance with ADN.	YES
9.3.4.3.1.1	<i>Step 1</i> Besides the alternative design, which is used for cargo tanks exceeding the maximum allowable capacity or a reduced distance between the side wall and the cargo tank as well as a more crashworthy side structure, a reference design with at least the same dimensions (length, width, depth, displacement) shall be drawn up. This reference design shall fulfil the requirements specified in section 9.3.1 (Type G), 9.3.2 (Type C) or 9.3.3 (Type N) and shall	YES	Rules for Inland Navigation Vessels Part 2, Chapter 4, Section 3, F, 3. and Part 2, Chapter 4, Section 3, A, B and C	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 1, 2 and 3.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).	YES	NO	<same as above>	YES

	comply with the minimum requirements of a recognised classification society.								
9.3.4.3.1.2.1	The relevant typical collision locations $i=1$ through $n$ shall be determined. The table in 9.3.4.3.1 depicts the general case where there are 'n' typical collision locations. The number of typical collision locations depends on the vessel design. The choice of the collision locations shall be accepted by the recognised classification society.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 3	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 3.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).	YES	NO	<same as above>	YES
9.3.4.3.1.2.2.1.5	Depending on the vessel design, the recognised classification society may require additional collision locations.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 3	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 3.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).	YES	NO	<same as above>	YES
9.3.4.3.1.2.2.2	<i>Tank vessel type G</i> For a tank vessel type G a collision at half tank height shall be assumed. The recognized classification society may require additional collision locations at other heights. This shall be agreed with the	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 3	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 3.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter	YES	NO	<same as above>	YES

	recognised classification society.				6, Section 1.3.4 (type C and N).				
9.3.4.3.1.2.4.3	<p><i>Additional examinations for tank vessels type G, C and N with independent cargo tanks</i></p> <p>As proof that the tank seatings and the buoyancy restraints do not cause any premature tank rupture, additional calculations shall be carried out. The additional collision locations for this purpose shall be agreed with the recognised classification society.</p>	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 3	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 3.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).	YES Partially	NO	<same as above>	YES
9.3.4.3.1.3.1	<p>For each typical collision location a weighting factor which indicates the relative probability that such a typical collision location will be struck shall be determined. In the table in 9.3.4.3.1 these factors are named <i>w<sub>floc(i)</sub></i> (column J). The assumptions shall be agreed with the recognised classification society.</p>	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 3	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 3.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).	YES Partially	NO	<same as above>	YES
9.3.4.4.1.2	<p>The program actually used and the level of detail of the calculations shall be agreed upon with a recognised classification society.</p>	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 4	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 4.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5	YES partially	NO	<same as above>	YES

					(type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).				
9.3.4.4.2.1	First of all, FE models for the more crashworthy design and one for the reference design shall be generated. Each FE model shall describe all plastic deformations relevant for all collision cases considered. The section of the cargo area to be modelled shall be agreed upon with a recognised classification society.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 4	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 4.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).	Partially	NO	<same as above>	YES
9.3.4.4.2.4	The calculation of rupture initiation must be based on fracture criteria which are suitable for the elements used. The maximum element size shall be less than 200 mm in the collision areas. The ratio between the longer and the shorter shell element edge shall not exceed the value of three. The element length <i>L</i> for a shell element is defined as the longer length of both sides of the element. The ratio between element length and element thickness shall be larger than five. Other values shall be agreed upon with the recognised	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 4	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 4.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).	Partially	NO	<same as above>	YES

	classification society.								
9.3.4.4.3.4	If the material properties from tensile tests are not available when starting the calculations, minimum values of Ag and Rm, as defined in the rules of the recognised classification society, shall be used instead. For shipbuilding steel with a yield stress higher than 355 N/mm <sup>2</sup> or materials other than shipbuilding steel, material properties shall be agreed upon with a recognised classification society.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 4	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 4.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).  Also Part 2 refers.	YES	NO	<same as above>	YES
9.3.4.4.4.4	Other $\sigma_g$ and $\sigma_e$ values taken from thickness measurements of exemplary damage cases and experiments may be used in agreement with the recognised classification society.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 4	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 4.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).	YES	NO	<same as above>	YES
9.3.4.4.4.5	Other rupture criteria may be accepted by the recognised classification society if proof from adequate tests is provided.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 4	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 4.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4	YES	NO	<same as above>	YES

					(type C and N).				
9.3.4.4.6	<i>Tank vessel type G</i> For a tank vessel type G the rupture criterion for the pressure tank shall be based on equivalent plastic strain. The value to be used while applying the rupture criterion shall be agreed upon with the recognised classification society. Equivalent plastic strains associated with compressions shall be ignored.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 4	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 4.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).	YES	NO	<same as above>	YES
9.3.4.4.5.2	The force penetration curves resulting from the FE model calculation shall be submitted to the recognised classification society.	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 4	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 4.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).	YES	NO	<same as above>	YES
9.3.4.4.6.2	Because in most collision cases the bow of the striking vessel shows only slight deformations compared to the side structure of the struck vessel, a striking bow will be defined as rigid. Only for special situations, where the struck vessel has an extremely strong side structure compared to	YES	Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, F, 4	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 6, 4.	Part 4, Chapter 4, Section 3.2 refers to these requirements. This is repeated in Part 4, Chapter 5, Section 1.3.5 (type G), and Part 4, Chapter 6, Section 1.3.4 (type C and N).	YES	NO	<same as above>	YES

	the striking bow and the structural behaviour of the struck vessel is influenced by the plastic deformation of the striking bow, the striking bow shall be considered as deformable. In this case the structure of the striking bow should also be modelled. This shall be agreed upon with the recognised classification society.								
<b><u>ADN</u></b> <b><u>2015</u></b>									
<b><u>1.2.1.</u></b>	SAFE HAVEN means a designated, recognisable, readily accessible module (fixed or floating) capable of protecting all persons on board against the identified hazards of the cargo for at least sixty minutes during which communication to the emergency and rescue services is possible. A safe haven can be integrated into the wheelhouse or into the accommodation. A safe haven can be evacuated during an incident. A safe haven on board is not acceptable when the		No Rules available	No Rules available	To be developed after this has been made clear by the ADN Safety Committee through the agreed working group.	No rules		To be noted in current amendments to the “Rules for the classification and construction of inland navigation ships (for European Inland Waterways)”.	It will be included in the “Rules for classification and construction of inland navigation vessels” 2016 edition

	<p>identified danger is explosion. A safe haven on board and a floating safe haven outside the ship are certified by a recognized classification society. A safe haven on land is constructed according to local law;"</p>								
<p><b>9.3.1.27.9</b></p>	<p>"For all cargo systems, the heat transmission coefficient as used for the determination of the holding time (7.2.4.16.16 and 7.2.4.16.17) shall be determined by calculation. Upon completion of the vessel, the correctness of the calculation shall be checked by means of a heat balance test. The calculation and test shall be performed under supervision by the recognized classification society which classified the vessel. The heat transmission coefficient shall be documented and kept on board. The heat transmission coefficient shall be verified at every renewal of the certificate of approval."</p>	<p>YES</p>	<p>No Rules available</p>	<p>No Rules available</p>	<p>Part 5, Chapter 13, Sections 4.4.1 and 5.4.1 refer to these requirements.</p>	<p>YES</p>		<p>&lt;same as above&gt;</p>	<p>It will be included in the "Rules for classification and construction of inland navigation vessels" 2016 edition</p>

9.3.2.11.2 a)	"Refrigerated cargo tank fastenings shall meet the requirements of a recognised classification society."		Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, C, 2.1.5	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 3, 2.1.5.	Part 5, Chapter 13, section 4.6 includes requirements for tank supports.	YES		<same as above>	It will be included in the "Rules for classification and construction of inland navigation vessels" 2016 edition
9.3.x.24.3	9.3.x.24.3 The cargo storage system shall be capable of resisting the full vapour pressure of the cargo at the upper limits of the ambient design temperatures, whatever the system adopted to deal with the boil-off gas. This requirement is indicated by remark 37 in column (20) of Table C of Chapter 3.2."		Rules for Inland Navigation Vessels Part. 2, Chapter 4, Section 3, C, 1.3.1	Rules for Inland navigation vessels Part. 6, Chapter 1, Section 3, 1.3.1.	Part 5, Chapter 9, Section 1.3 includes requirements on design pressures.	YES		<same as above>	It will be included in the "Rules for classification and construction of inland navigation vessels" 2016 edition

Notes from :

LR :

1 - Rules and Regulations for the Classification of Inland Waterway Ships. In this document this will be referred to as 'Rules'. All Parts, Chapters and Sections mentioned in this document refer to these Rules.

Apart from these Rules a Marine Survey Procedure Manual in which detailed information on the content of the surveys is included is applicable.

2- Standards which are given by national authorities or international accepted standards.

RRR :

<sup>1</sup> **RINS** – Rules for Classification and Construction of Inland Navigation Ships

<sup>2</sup> **RTSC** – Rules for Technical Supervision over Construction of Ships and Manufacturing of Products and Materials

<sup>3</sup> **Guidelines** – Rules For Ships Carrying Dangerous Goods, Guidelines P.027-2008; Survey Of Ships For Determination Of Their Capability To Carry Dangerous Goods, Guidelines P.038-2011

RINA:

The reference is the consolidated edition of Inland Navigation Rules identified as document no. RES-19ENG as amended until 1.7.2015. Some requirements are the same as used in RINA Rules for the Classification of Ships and other guidelines for the construction of chemical/oil tankers and gas carriers.