

**Proposed Draft legislative changes to EC (Carriage of Dangerous Goods by Road and Use of Transportable Pressure Equipment) Regulations 2011 to 2023**

*The following amendments are proposed to the existing legislation for the Carriage of Dangerous Goods by Road and Use of Transportable Pressure Equipment to address the safety of national tanks, primarily pre-2003 tanks used in the transport of petroleum fuels. The proposed changes will also accommodate EN 12493 inclusive of Annex C LPG tanks and proposals for all other pre-2003 national tanks.*

	<b>Proposal</b>	<b>Rationale</b>
1.	<b>Regulation 2 - include definition of LPG Annex C tanks</b>	Definition will be inserted as part of the legal text.
2.	<b>Regulation 10 (9)</b> Amending regulation 10(9)(b)(i) by the addition of <b>“and 6.8.2.6.1; or”</b> after “subsection 6.7.3.1”	The construction of tanks under ADR 6.7 are exempted under Regulation 10(9)(b)(i), however, the construction of tanks under ADR 6.8 are not. While LPG tanks constructed to EN12493 inclusive of Annex C do not comply with ADR 6.8, the design elements are essentially covered under ADR 6.8. The additional proposed provisions in Regulation 10(9) deal with different reference temperatures for the filling of tanks and different test pressures for tank shells but not the design and construction element which allows the tank shell to be thinner than ADR allows. The insertion of <b>“and 6.8.2.6.1”</b> would permit Annex C tanks to be exempted from the requirements of ADR 6.8 regarding construction.  The additional text in red addresses the inconsistency in the current legal text. The construction of ADR 6.7 tanks is exempted while the construction of ADR 6.8 tanks is not. All LPG Annex C tanks are ADR 6.8 by design.
3.	<b>National Tanks Regulation 54</b> Add new text “National tanks are restricted to national use only within the State.”	“National tanks are restricted to national use only within the State” has been added for clarity as to what are defined as national tanks.
4.	<b>Remove first paragraph and replace with the following:</b>  <b>54.</b> Notwithstanding Part 2 of these Regulations, a tank and its respective fittings, that is not fully in compliance with Chapters 6.7, 6.8, 6.9, 6.10 or 6.12 of the ADR and, <ul style="list-style-type: none"> <li>i. was constructed before 1 July 2003 and <b>in use within the State</b> prior to <b>dd/mm/yyyy</b>, or</li> <li>ii. in the case of mobile manufacturing units, was constructed before 1 July 2009, or</li> <li>iii. for tanks constructed to EN12493 inclusive of Annex C,</li> </ul> shall be taken to comply with ADR where-	Existing text restructured to provide clarity and the addition of an “in-use time limit” to prevent the importation of “old” tanks into the national tank pool.  The “prior” date will be the date of entry of these amends.

5.	Delete "Regulation 54 (d)" from legislation and replace with the new text below	Under the current Regulation 54(d), the marking requirements apply from 31 December 2013. However, the marking requirement stands, but the date prompting compliance is no longer relevant as all tanks are past inspection date requirements that would have necessitated the additional marking. Thus the existing Regulation 54(d) can be deleted.
6.	<p><b>Proposal to amend the current Regulation 54 (d) by the addition of the following –</b></p> <p>"(d) in addition to marking required in 54 (c), tanks designed and constructed to ADR 6.8.2.1 and 6.8.3.1 but allowing for different reference temperatures as specified in EN12493 Annex C, the following –</p> <ul style="list-style-type: none"> <li>i) EN12493 Annex C</li> <li>ii) UN number(s)</li> <li>iii) Manufacturer's name or mark</li> <li>iv) Year of manufacture</li> <li>v) Reference temperature</li> <li>vi) Test pressure</li> <li>vii) External design pressure</li> <li>viii) Stamp of the inspection body</li> </ul>	<p>This is to replace the current (d) with a new part (d) to introduce new marking requirements specifically for LPG EN12493 Annex C tanks. These tanks are national tanks but unless they are suitably marked can be mistaken for ADR tanks.</p> <p>(vi) is to provide for the inclusion of test pressure marking for these tanks and to provide clarity whether they are used/tested for a specific hydrocarbon gas mixture (i.e. dedicated for either propane or butane or propane 18 bar and therefore suitable for butane, and the relevant ADR specified mixtures of same).</p> <p>By way of example, Propane 18 Bar at 50°C, Butane 5 Bar (<i>note 10 bar is the ADR minimum</i>) may be specified by the manufacturer in accordance with specified design. The manufacturer will have specified the test pressure in accordance with the tank design ordered by the operator.</p>
7.	<p><b>Schedule 3</b> Proposal to amendment certificate at Part 9:</p> <p>Amend 9.5 to read "<b>If applicable</b>, tank code according to subsections 4.3.3.1 or 4.3.4.1 of the ADR".</p> <p>Add new "9.7 Tank constructed to EN12493 inclusive of Annex C Yes/No"</p>	Annex C LPG tanks and possibly other tanks designed to other standards (non-ADR) are not required to have an ADR tank code. Therefore, it is recommended that "if applicable" is added to the legal text. However, the Authority is aware that some tanks have been allocated "an ADR tank code" and it can provide useful information. Thus, to accommodate Annex C tanks being allocated a tank code, we are recommending the annual vehicle certificate should be amended to read "if applicable....". The draft vehicle certificate (Schedule 3) will then show that it is an Annex C tank and will include the test pressure to close out the current information gap.
8.	<p><b>Schedule 4, Part 1</b></p> <p><b>Delete "Miscellaneous"</b></p>	
9.	<p><b>Schedule 4, Part 1</b></p> <p><b>Add new paragraph prior to first paragraph in 1.</b></p> <p>"National tanks shall be inspected in accordance with ADR as appropriate to the tank design, so far as any modification and repairs allow. The form of any certificate for type approval, initial, intermediate, periodic inspection or exceptional inspection shall be a</p>	This proposal is to revise schedule 4 to cover all national tanks and the requirements to which they must be inspected, including requirements of tank testers. This will align national provisions with ADR.

<p><b>10.</b></p> <p><b>11.</b></p> <p><b>12.</b></p> <p><b>13.</b></p>	<p>certificate referencing these regulations and not ADR.”</p> <p>Add new:</p> <p>(f) (i) A tank record containing all the important technical information concerning a tank and its history shall be maintained by the tank owner. The tank record shall be provided on request to the competent authority. The tank record shall be maintained throughout the life of the tank and retained for an additional 15 months after the tank is taken out of service.</p> <p>(ii) Should a change of ownership or operator occur during the life of the tank, the tank record shall be transferred upon change of ownership or operator no later than 10 working days to the new owner/ operator.</p> <p>(iii) Copies of the tank record and all necessary documents shall be made available to the inspection body or competent person for the purposes of examination, inspection and tests on the tank during initial, periodic, intermediate or exceptional inspections.</p> <p>(g)(i) Persons performing such inspection, examination and testing shall prepare written procedures based on provisions of the ADR and these regulations.</p>	<p>(f)(i) Aligns national provisions with ADR. A “tank record” is defined in ADR. The need for tank records is generally acknowledged in the sector but are not called out in national provisions.</p> <p>ADR gives examples of certificates that form part of the tank record. For the purpose of these legislative amends, “tank record” requirements are set out in f(i) so the need for a separate definition is negated.</p> <p>(g)(i) provides for tank inspectors to have written procedures which should be made available for inspection by the competent authority.</p>
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14.	Schedule 4, Part 1 (2) to be deleted.	The regulation refers to old UK and ASME standards used for the design of gas tankers. It is the Authority’s understanding that there are none of these tanks in operation. If this is verified this regulation may be deleted.																		
15.	<p><b>Schedule 4, Part 1 (3)</b>  <b>Examinations, inspections and tests.</b>  3. All practical steps shall be taken to ensure that a tank and its fittings:  Replace (a), (b), (c) and (d) with the following:  (a) Undergoes an intermediate and periodic inspection by an inspection body or competent person, subject to any conditions or requirements of the inspection body or competent person in accordance with their written procedures and at intervals specified in the following table:</p> <table border="1" data-bbox="250 580 1099 1233"> <thead> <tr> <th>Tank</th> <th>Intermediate (years)</th> <th>Periodic (years)</th> </tr> </thead> <tbody> <tr> <td>Fixed (tank vehicle), demountable and battery vehicles</td> <td>3</td> <td>6</td> </tr> <tr> <td>Tank containers, tank swap bodies, MEGCs</td> <td>2.5</td> <td>5</td> </tr> <tr> <td>Refrigerated liquified gas tank vehicle, demountable and battery vehicles</td> <td>6 years after each periodic</td> <td>6 years after the initial inspection &amp; thereafter every 12 years</td> </tr> <tr> <td>Refrigerated liquified gas tank container, tank swap bodies, MEGCs</td> <td>6 years after each periodic</td> <td>8 years after the initial inspection &amp; thereafter every 12 years</td> </tr> <tr> <td>Chlorine tank</td> <td>n/a</td> <td>3</td> </tr> </tbody> </table>	Tank	Intermediate (years)	Periodic (years)	Fixed (tank vehicle), demountable and battery vehicles	3	6	Tank containers, tank swap bodies, MEGCs	2.5	5	Refrigerated liquified gas tank vehicle, demountable and battery vehicles	6 years after each periodic	6 years after the initial inspection & thereafter every 12 years	Refrigerated liquified gas tank container, tank swap bodies, MEGCs	6 years after each periodic	8 years after the initial inspection & thereafter every 12 years	Chlorine tank	n/a	3	<p>Significant revision of Schedule 4 tank inspection requirements to ensure a broader range of tank types are addressed. Inspection and test requirements have also been improved to provide greater detail on inspection requirements and certification issued by tank inspectors.</p> <p>The amendments do not change the intent of the original legislation rather provide detail to ensure a better understanding and compliance with the legislation.</p> <p>Changes include:</p> <ol style="list-style-type: none"> <li>1. Inspection of class 2 substance tank by an accredited inspection body.</li> <li>2. Class 3 fuels are no longer fully exempted from hydraulic testing.</li> <li>3. Sunset date for tanks that cannot be fully tested (hydraulic) due to design.</li> <li>4. Specific test periods introduced for tank type and substance and exemptions according to ADR (TT special provisions).</li> <li>5. Certification templates.</li> <li>6. Additional requirements for LPG Annex C tanks.</li> </ol>
Tank	Intermediate (years)	Periodic (years)																		
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16.	(b) An exceptional inspection as considered appropriate by the inspection body or competent person shall be carried out after any major repairs, modifications or alterations which affect the integrity of the tank. When an exceptional inspection is carried out and meets the requirements of either an intermediate	(b) “exceptional inspection” – may be added to definitions as it does not occur separately in ADR definitions – however it is “explained” or defined in the body of the text see ADR 6.8.2.4.4																		

or periodic inspection, it may be taken to be an intermediate or periodic inspection as appropriate.

(c)

17. (i) Hydraulic testing of pre-2003 fixed tanks used for the carriage of substances with UN numbers, UN1202, UN1203, UN1223 and UN1863 – legal text to be drafted following public consultation. See question 2 in the document “Questions to be considered as part of the consultation”.

18. (ii) For tanks used for the carriage of powdery or granular substances the hydraulic test may be omitted and replaced by a leakproofness test.

19. (iii) For vacuum insulated tanks the inspection of the interior and hydraulic test may be omitted when the vacuum is verified by test. Vacuum test results shall be included on the certificate of examination.

20. (iv) For fixed tanks carrying chlorine only the periodic test shall be carried out every 3 years, no intermediate inspection is required.

21. (d) Tanks designed and constructed for the carriage of class 2 substances, including those designed and constructed to EN12493 inclusive of Annex C, shall be subject to examination, inspection and test, by a suitably accredited inspection body, in accordance with ADR 6.8.2.4 and 6.8.2.6 and other relevant provisions of ADR, taking into account, as appropriate, lower reference temperatures used in the design and construction of EN12493 Annex C tanks. Notwithstanding the forgoing, the following applies:

(i) tank construction and certification shall comply with ADR 1.8.7 taking into account the results of assessments and tests according to EN12493 inclusive of Annex C.

22. (ii) ADR tank code may be omitted from the marking and certification for a tank designed and constructed in accordance with EN12493 inclusive of Annex C. Where a tank code is used in accordance with ADR 4.3.3 the minimum test pressure shall reflect the test pressure specified by design. The tank and certification shall clearly identify the tank as a tank designed and constructed to EN12493 inclusive of Annex C.

23. (e) (i) Examination, inspection and tests required by 3 (a) shall include, but not limited to the following:

	Intermediate inspection	Periodic inspection
Examination of documents	x	x
Check on design characteristics. Only when not previously documented	x	x
Inspection of the interior		x
Inspection of the exterior	x	x

(c)(iv) These new additions reflect ADR and clarify testing requirements not otherwise covered in current regulations.

(e) (i) This places some structure on the test and examination requirements.

<sup>1</sup> Hydraulic pressure test		x
<sup>2</sup> Leakproofness test – carried out on the tank plus equipment and on all compartments separately for compartmented shells.	X	x
Inspection of service equipment/correct operation	x	x
Inspection of the frame or other structural equipment of portable tanks or tank containers	x	x

<sup>1</sup> Hydraulic test pressures shall be applied in accordance with ADR 6.8.2.4.1

<sup>2</sup> Leakproofness testing for tanks intended for liquids or solids (granular or powder), when a gas is used it shall be carried out at least equal to 25% of the maximum working pressure, but not less than 20Kpa (0.2 bar gauge). Tanks fitted with safety devices to prevent spilling in the event of an overturn, the leakproofness test shall be at least equal to the static pressure of the substance of highest density to be carried, the static pressure of water or 20Kpa (0.2 bar gauge), whichever is the highest.

Leakproofness testing for tanks intended for the carriage of gases shall be performed at a pressure of,

- not less than 20% of the test pressure for compressed gases, liquified gases and dissolved gases.
- not less than 90% of the maximum working pressure for refrigerated liquified gases.

Holding times for tank containers carrying refrigerated liquified gases and inspection and tests for battery vehicles and MEGCs shall comply with ADR.

24.

(e) (ii) Exceptional Inspection - Examination, inspection and tests required by 3 (b) shall include, but not limited to the following:

	Service equipment	Service equipment hot work	Tank repairs and modifications	Frame or mountings for running gear	Liner or coating
Examination of documents	x	x	x	x	x
Check on design characteristics. Only when not previously documented	x	x	x	x	x
Inspection of the interior		x	x		x
Inspection of the exterior		x	x		
Hydraulic pressure test		x <sup>1</sup>	x		x
Leakproofness test	x	x	x		x
Inspection of service equipment	x	x	x		

Inspection of the frame or other structural equipment of portable tanks or tank containers			x	x	
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25.

<sup>1</sup> applicable when there has been a replacement of service equipment involving the application of heat.

Note: The routine replacement of P&V valves (breather valves) would not normally require an exceptional inspection nor leakproofness test.

(f) Special provisions under ADR 6.8.4(d) must be applied where relevant.

	<p><b>Schedule 4, Part 1 (4)</b>  <b>Certificates of examination, inspections and tests</b></p> <p>4. <b>Replace (a) and (b) with the following –</b></p> <p>26. (a) intermediate, periodic or exceptional examination carried out in accordance with paragraph 3(a) and 3(b) and containing the prescribed particulars as set out in Part 2 of this Schedule and signed by the person making the examination.</p> <p>27. Replace (c) with the following -  (b) an initial, periodic, intermediate or exceptional examination carried out in accordance with Schedule 4 Part 1, 3 (a) and 3 (b) containing the prescribed particulars as set out in Part 3 of this Schedule and signed by the person making the examination. All certification issued in respect of tanks designed and constructed to EN12493 inclusive of Annex C shall be identified in each certificate as “EN12493 Annex C”.</p> <p>Add new paragraph:</p> <p>28. (c) tanks failing the examination, inspection and testing required by Schedule 4 Part 1, 3(a) and 3(b) shall be issued a ‘National Tank Certificate (Ireland) - Notification of Refusal’ as set out in Part 4 of this Schedule and signed by the person making the examination. Results of the examination, inspection and testing affecting the safety of the tank shall be recorded on the refusal certificate with supplementary details recorded in the inspection report. The Notification of Refusal and any supplementary inspection report shall be held by the owner/operator in the tank file.</p>	
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