# **Economic Commission for Europe**

**Inland Transport Committee** 

Working Party on the Transport of Dangerous Goods

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Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods

Geneva, 17–27 September 2019 Item 2 of the provisional agenda: **Tanks** 

# Supplementary information from the informal working group on the inspection and certification of tanks: Proposed amendments to Chapter 6.8 and to Sections 1.8.7 and 1.8.6

# Transmitted by the Government of the United Kingdom

- 1. Using ECE/TRANS/WP.15/AC.1/19/BE/INF.13/Rev.1 as a basis, and further to ECE/TRANS/WP.15/AC.1/2019/40 and INF.17, the United Kingdom, on behalf of the informal working group on the inspection and certification of tanks, wishes to provide the Joint Meeting with the proposed amendments to Chapter 6.8 and to Sections 1.8.7 and 1.8.6 as set out in Annexes I, II and III respectively. Annex IV contains consequential amendments.
- 2. As agreed in the Joint Meeting, the Working Group on Tanks reviewed the proposals in INF.19 and agreed, subject to the approval of the Joint Meeting, that the proposals should be further considered at the next meeting of the informal working group scheduled to be held on 11 to 13 December 2019 in London.
- 3. Delegates to the Joint Meeting are invited to consider the proposals and submit comments to the informal working group before 31 October 2019 to enable the text to be finalised at this meeting with a view to adoption at the March 2020 session of the Joint Meeting.

# Annex I - Proposed amendments to Chapter 6.8

(RID:) Under the title, current NOTE becomes NOTE 1. Add a new NOTE 2 as follows: (ADR:) Under the title, add a new NOTE 3 as follows:

"NOTE 2/3: In this chapter, "inspection body" means a body conforming to 1.8.6.

6.8.1 Replace the title by: "Scope and general provisions".

Add the following new sub-section 6.8.1.5:

#### "6.8.1.5 Conformity assessment, type approval and inspections procedures

The following provisions describe how to apply the procedures in 1.8.7.

For the purpose of this sub-section the term "country of registration" means:

the RID Contracting State/Contracting Party to ADR of registration of the wagon/vehicle on which the tank is mounted.

for demountable tanks, the RID Contracting State/Contracting Party to ADR where the owner's or operator's company is registered.

the RID Contracting State/Contracting Party to ADR where the owner's or operator's company is registered.

The inspection body responsible for assessing the conformity of the complete tank shall verify, to the extent necessary, that all of its components conform to the requirements of RID/ADR, irrespective of where they have been manufactured.

# 6.8.1.5.1 Type examination according to 1.8.7.2.1

- (a) For the type examination, the manufacturer of the tank shall engage a single inspection body recognized by the competent authority of either the country of manufacture or the first initial country of registration of the first tank manufactured according to that type. If the country of manufacture is not an RID Contracting State/a Contracting Party to ADR, the manufacturer shall engage a single inspection body recognized by the competent authority of the country of registration of the first tank manufactured according to that type.
- (b) If the type examination of the service equipment is done separately from the tank according to 6.8.2.3.2, the manufacturer of the service equipment shall engage an single inspection body recognized by a competent authority of an RID Contracting State/a Contracting Party of ADR.

# 6.8.1.5.2 *Type approval certificate issue according to 1.8.7.2.2*

Only the competent authority that approved or recognized the inspection body that performed the type examination shall issue the type approval certificate.

However, when an inspection body is designated by the competent authority to issue the type approval certificate, the type examination shall be performed by that inspection body.

# 6.8.1.5.3 Supervision of manufacture according to 1.8.7.3

(a) For the supervision of manufacture, the manufacturer of the tank shall engage a single inspection body recognized either by the competent authority of the country of registration or the country of manufacture. If the country of manufacture is not an RID Contracting State/a Contracting Party to ADR, a manufacturer shall engage a single inspection body recognized by the competent authority of the country of registration.

(b) If the type examination of the service equipment was is done separately from the tank, the manufacturer of the service equipment shall engage for the supervision of manufacture a single inspection body recognized by the competent authority of an RID Contracting State/a Contracting Party of ADR. The manufacturer may use an in-house inspection service according to 1.8.7.7 to perform the procedures of 1.8.7.3.

#### 6.8.1.5.4 *Initial inspection and tests according to 1.8.7.4*

For the initial inspection and tests, the manufacturer of the tank shall engage a single inspection body recognized either by the competent authority of the country of registration, or the country of manufacture. If the country of manufacture is not an RID Contracting State/a Contracting Party to ADR, a manufacturer shall engage a single inspection body recognized by the competent authority of the country of registration.

6.8.1.5.5 Entry into service verification according to 1.8.7.5

NOTE: The competent authority shall respect reciprocal recognition agreements between RID Contracting States/Contracting Parties of ADR when considering entry into service verifications.

The competent authority of the country of first registration may require an entry into service verification of the tank to verify conformity with the applicable relevant requirements of this chapter.

When the country of registration of a tank is changed, the competent authority of the RID Contracting State/Contracting Party to ADR to which the tank is transferred may require an entry into service verification.

The owner or operator of the tank shall engage and single inspection body approved by the competent authority of the country of registration to perform this entry into service verification. The entry into service verification shall consider the condition of the tank and shall ensure that the requirements of RID/ADR are fulfilled.

6.8.1.5.6 Intermediate, or exceptional inspection according to 1.8.7.6

The intermediate or periodic or exceptional inspection shall be performed

(ADR:) in the country of registration by an inspection body recognized by the competent authority of that country.

(RID:) by an inspection body recognized by the competent authority of the country where the inspection takes place or by an inspection body recognized by the competent authority of the country of registration. by an inspection body recognized by the competent authority of the country where the inspection takes place or, if the country is not an RID Contracting State/a Contracting Party to ADR, by an inspection body recognized by the competent authority of the country of registration.

The owner or operator of the tank, or its authorised representative, shall engage and single inspection body for each intermediate, or periodic or exceptional inspection."

- 6.8.2.1.16 In the second paragraph, delete: "or by a body designated by that authority".
- 6.8.2.1.23 Amend the first three sentences to read as follows:

"The inspection body performing inspections according to 6.8.2.4.5, shall verify and confirm the ability to perform welding operations under 1.8.7 and the operation of a weld quality assurance system under 1.8.7."

Amend the last paragraph to read as follows:

"Where there are doubts regarding the quality of welds, including the welds made to repair any defects revealed by the non-destructive checks, additional checks of the welds may be required."

- 6.8.2.2.2 In the last sentence, delete: "or by a body designated by that authority".
- 6.8.2.3 Amend the title to read as follows: "Type examination and type approval".

Add the new 6.8.2.3.1 to read as follows:

"6.8.2.3.1 *Type examination* 

The provisions in 1.8.7.2.1 shall be applied."

Replace: "6.8.2.3.1" by "6.8.2.3.2".

In the new 6.8.2.3.2, add the following title: "Type approval".

Amend the first paragraph to read as follows:

"In accordance with 1.8.7.2.2.1, the competent authority shall issue in respect of each new type of tank-wagon/fixed tank, demountable tank, tank-container, tank swap body, battery-wagon/battery-vehicle or MEGC a certificate attesting that the type, including fastenings, which has been examined, is suitable for the purpose for which it is intended and meets the construction requirements of 6.8.2.1, the equipment requirements of 6.8.2.2 and the special conditions for the classes of substances carried."

After: "The certificate shall show", add: "in addition to 1.8.7.2.2.1".

Delete the first indent: "- the results of the test;"

Amend the fifth paragraph to read as follows:

"At the request of the manufacturer of the service equipment, a separate type approval of valves and other service equipment for which a standard is listed in the table in 6.8.2.6.1 shall be carried out in accordance with that standard. This separate type approval shall be taken into account when issuing the certificate for the tank, if the test results are presented and the valves and other service equipment are fit for the intended use."

Replace "6.8.2.3.2" by "6.8.2.3.3".

- 6.8.2.3.3 Delete the current text.
- 6.8.2.3.4 Amend the text to read as follows:

"In accordance with 1.8.7.2.2.3, the competent authority shall issue a supplementary approval certificate for the modification in the case of a modification of a tank, battery wagon/vehicle or MEGC with a valid, expired or withdrawn type approval."

- 6.8.2.4.1 and 6.8.2.4.2 In Footnote 13/12, replace "the expert approved by the competent authority" by "the competent authority".
- 6.8.2.4.2 In the penultimate paragraph, replace "the expert approved by the competent authority" by "the inspection body".
- 6.8.2.4.4 Replace "exceptional check" by "exceptional inspection" five times.
- 6.8.2.4.5 Amend the first paragraph to read as follows:

"Certificates shall be issued showing the results of the inspections and tests in accordance with 6.8.2.4.1 to 6.8.2.4.4, even in the case of negative results. These certificates shall refer to the list of the substances permitted for carriage in this tank or

to the tank code and the alphanumeric codes of special provisions in accordance with 6.8.2.3.2." (RID:) 6.8.2.4.6 Delete the text. 6.8.2.5.1 In the 10th indent, replace "stamp of the expert" by "stamp of the inspection body". 6.8.2.6 In the heading replace "and tested" by ", inspected and tested". In the first paragraph, replace "1.8.7 or 6.8.2.3" by "1.8.7 and 6.8.2.3" and replace 6.8.2.6.1 "1.8.7.2.4 or 6.8.2.3.3" by "1.8.7.2.2.2". In the Table, for "EN 14432:2014" and "EN 14433:2014", replace "6.8.2.3.1" by "6.8.2.3.2". 6.8.2.6.2 Amend the title to read as follows: "Type examination, inspection and test". In the first sentence, add "the type examination and" before "the inspection". 6.8.2.7 In the heading replace "and tested" by ", inspected and tested". 6.8.3.3 Amend the title to read as follows: "Type examination and type approval". 6.8.3.4.4 Replace "an expert approved by the competent authority" and "an approved expert" by "an inspection body". 6.8.3.4.7 and 6.8.3.4.8 Replace "the approved expert" by "the inspection body". In Footnote 19/12, replace "the expert approved by the competent authority" by "the 6.8.3.4.13 competent authority". 6.8.3.4.14 Replace "the competent authority or its authorized body" by "the competent authority". 6.8.3.4.18 In the first paragraph, replace "the expert approved by the competent authority" by "the inspection body". In the second paragraph, replace "6.8.2.3.1" by "6.8.2.3.2". 6.8.3.5.6 (a) Replace "(see 6.8.2.3.1)" by "(see 6.8.2.3.2)". In the last indent, replace "stamp of the expert" by "stamp of the inspection body". 6.8.3.5.10 6.8.3.5.11 (RID:) In the left hand column, replace "(see 6.8.2.3.1)" by "(see 6.8.2.3.2)". In the right hand column, replace "(see 6.8.2.3.1)" by "(see 6.8.2.3.2)". 6.8.3.6 In the heading replace "and tested" by ", inspected and tested". In the first paragraph, replace "1.8.7.2.4" by "1.8.7.2.2.2". 6.8.3.7 In the heading replace "and tested" by ", inspected and tested". Amend the second paragraph to read as follows: "The procedure for periodic inspections shall be specified in the type approval if the

standards referenced in 6.2.2, 6.2.4 or 6.8.2.6 are not applicable or shall not be applied."

"The conformity assessment procedures of section 1.8.7 shall be applied by the competent authority or the inspection body conforming to 1.8.6.3 and accredited

Amend the text to read as follows:

according to EN ISO/IEC 17020:2012 (except clause 8.1.3) type A."

6.8.4 (c), special provision TA4

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- 6.8.4 (d), special provision TT2 Replace "an expert approved by the competent authority" by "an inspection body".
- 6.8.4 (d), special provision TT9 Amend the text to read as follows:

"For inspections and tests (including supervision of the manufacture) the procedures of section 1.8.7 shall be applied by the competent authority or the inspection body conforming to 1.8.6.3 and accredited according to EN ISO/IEC 17020:2012 (except clause 8.1.3) type A."

(ADR:)

6.8.4 (d), special provision TT11 At the end of the first paragraph, replace "the competent authority, its delegate or inspection body" by: "the competent authority or the inspection body".

# **Annex II - Proposed amendments to Section 1.8.7**

# 1.8.7 Procedures for conformity assessment, type approval certificate issue and periodic inspections

NOTE 1: In this section, "relevant body" means an inspection body or an in-house inspection service as assigned in Chapters 6.2 and 6.8.-6.2.2.11 when certifying UN pressure receptacles, in 6.2.3.6 when approving non UN pressure receptacles and in special provisions TA4 and TT9 of 6.8.4.

NOTE 2: In this section, "manufacturer" means the enterprise who is responsible to the competent authority for all aspects of the conformity assessment and for ensuring the conformity of construction. It is not essential that the enterprise is directly involved in all stages of the construction of tanks, battery-wagons/battery-vehicles, MEGCs, or pressure receptacles, or structural or service equipment which is subject of the conformity assessment.

NOTE 3: In this section, tThe procedures set out in this section apply to the elements, structural equipment, and service equipment of the battery-wagons/battery-vehicles.

(RID:) NOTE 4: In this section, fF or tank-wagons, the procedures set out in this section apply to the shell(s), their its structural equipment and service equipment.

#### 1.8.7.1 General provisions

1.8.7.1.1 The procedures in section 1.8.7 shall be applied according to as specified in Chapters 6.2 and 6.8. 6.2.3.6 when approving non UN pressure receptacles and according to TA4 and TT9 of 6.8.4 when approving tanks, battery vehicles/battery wagons and MEGCs.

The procedures in section 1.8.7 may be applied according to the table in 6.2.2.11 when certifying UN pressure receptacles.

If the competent authority performs the tasks itself, the competent authority shall meet the provisions of this section.

#### 1.8.7.1.2 Each application for

- (a) The type approval examination in accordance with 1.8.7.2.1; or;
- (b) The type approval certificate issue in accordance with 1.8.7.2.2; or
- (bc) The supervision of manufacture in accordance with 1.8.7.3-and; or
- (d) *the initial inspection and tests in accordance with 1.8.7.4; or*

shall be lodged by the manufacturer with a competent authority or an inspection body, as applicable, in conformity with Chapters 6.2 and 6.8.

### Each application for

- (e) The entry into service verification in accordance with 1.8.7.5; or
- (ef) The periodic inspection, intermediate inspection and exceptional <u>inspection</u> ehecks-in accordance with 1.8.7.65

shall be lodged by the <u>owner or operator</u>, <u>or its authorised representative</u>, <del>applicant</del> with a <del>single</del> competent authority, <u>its delegate</u> or an <del>approved</del> inspection body of his choice.

#### 1.8.7.1.3 The application shall include:

- (a) The name and address of the applicant according to 1.8.7.1.2;
- (b) For conformity assessment where the applicant is not the manufacturer, the name and address of the manufacturer

- (eb) A written declaration that the same application has not been lodged with any other competent authority, its delegate or inspection body;
- ( $\underline{\text{dc}}$ ) The relevant technical documentation specified in 1.8.7. $\underline{87}$ ;
- (ed) A statement allowing the competent authority, its delegate or the inspection body, as appropriate, access for conformity assessment or inspection purposes to the locations of manufacture, inspection, testing and storage and providing it with all necessary information to perform their tasks.
- 1.8.7.1.4 Where the applicant can demonstrate to the satisfaction of the competent authority or its delegated inspection body conformity with 1.8.7.6 the applicant may establish an inhouse inspection service which may perform part or all of the inspections and tests when specified in 6.2.2.11 or 6.2.3.6. Where the manufacturer or a testing facility is allowed to establish an in-house inspection service in accordance with Chapter 6.2 or 6.8, it shall demonstrate to the satisfaction of the inspection body that the in-house inspection service is able to perform inspections and tests in conformity with 1.8.7.
- 1.8.7.1.5 Design tType approval certificates, and inspection certificates of conformity and reports, including the technical documentation, shall be retained kept:
  - (a) by the manufacturer or by the applicant for the type approval, if he is not the manufacturer, and for a period of at least 20 years starting from the last expiry date of production of products of the same type approval;
  - (b) by the issuing competent authority or the issuing inspection body, who issued the certificate, for a period of at least 20 years starting from the last issuing date of production of products of the same type;
  - (c) by the owner or operator for a period of at least 15 months after the product is taken out of service.
- 1.8.7.1.6 When a manufacturer or owner intends to cease operation, he shall send the documentation to the competent authority. The competent authority shall then retain the documentation for the rest of the period specified in 1.8.7.1.5.
- 1.8.7.2 Type examination and type approval certificate issue

Type approvals authorise the manufacture of pressure receptacles, tanks, battery-vehicles or MEGCs within the period of validity of that approval.

#### 1.8.7.2.1 <u>Type examination</u>

The manufacturer applicant shall:

- (a) In the case of pressure receptacles, place at the disposal of the relevant inspection body representative samples of the production envisaged. The relevant inspection body may request further samples if required by the test programme;
- (b) In the case of tanks, battery-vehicles/battery-wagons or MEGCs, give access to the prototype for type testing;
- (c) In the case of service equipment which is not separately type approved, apply for a conformity assessment in conjunction with the product to which it is fitted. The assessment shall demonstrate the conformity of the service equipment to the requirements of RID/ADR;

NOTE: The results of assessments and tests according to other regulations or standards can be taken into account.

#### 1.8.7.2.2 The relevant inspection body shall:

(da) Examine the technical documentation specified in 1.8.7.87.1 to verify that the design is in accordance with the relevant provisions of RID/ADR, and the

- prototype or the prototype lot has been manufactured in conformity with the technical documentation and is representative of the design;
- (eb) Perform the examinations and witness the tests specified in RID/ADR, <u>including</u> the relevant standards, to determine that the provisions have been applied and fulfilled, and the procedures adopted by the manufacturer meet the requirements;
- (<u>fe</u>) Check the <u>material(s)</u> certificate(s) issued by the <u>materials</u>-manufacturer(s) <u>of</u> <u>the materials</u> against the relevant provisions of RID/ADR;
- (gd) As applicable, approve the procedures for the permanent joining of parts or check that they have been previously approved, and verify that the staff undertaking the permanent joining of parts and the non-destructive tests are qualified or approved;
- (<u>he</u>) Agree with the <u>manufacturer</u> <u>applicant</u> the location(<u>s</u>) <u>and testing facilities</u> where the examinations and necessary tests are to be carried out.

The <u>relevant-inspection</u> body shall issue a type-examination report to the <u>applicant</u> manufacturer.

#### 1.8.7.2.23 Type approval certificate issue

Type approvals authorise the construction of pressure receptacles, tanks, battery-vehicles/battery-wagons or MEGCs within the period of validity of that approval.

1.8.7.2.2.1 Where the type satisfies all applicable provisions, the competent authority, or its delegate or the inspection body, shall issue a type approval certificate to the applicant manufacturer in conformity with Chapters 6.2 and 6.8.

This certificate shall contain:

- (a) The name and address of the issuer;
- (b) The name and address of the manufacturer—and of the applicant when the applicant is not the manufacturer;
- (c) A reference to the version of RID/ADR and standards used for the type examination;
- (d) Any requirements resulting from the examination;
- (e) The necessary data for identification of the type and variation, as defined by the relevant standard;
- (f) The reference to the type examination report(s); and
- (g) The maximum period of validity of the type approval; and
- (h) Any specific requirements in accordance with Chapters 6.2 and 6.8.

A list of the relevant parts of the technical documentation shall be annexed to the certificate (see 1.8.7.87.1).

1.8.7.2.42.2 The type approval shall be valid for a maximum of ten years. If within that period, the relevant technical requirements of RID/ADR, (including the referenced standards), have changed so that the approved type is no longer in conformity with them, the relevant body which issued then the type approval is no longer valid. shall withdraw it and inform the holder of the type approval. It shall then be withdrawn by the competent authority or the inspection body which issued the type approval certificate.

NOTE: For the <u>ultimate latest</u> dates for withdrawal of existing type approvals, see column (5) of the tables in 6.2.4.1 and 6.8.2.6.1 or 6.8.3.6 as appropriate.

If a type approval has expired, or has been withdrawn, the manufacture of the <u>products</u> (pressure receptacles, tanks, battery-vehicles/battery-wagons or MEGCs) according to that type approval is no longer authorised.

NOTE: In such a case, tThe relevant provisions concerning the use, periodic inspection and intermediate inspection of <u>products pressure receptacles</u>, tanks, battery vehicles/battery wagons or MEGCs contained in <u>a</u> the type approval which has expired or has been withdrawn shall continue to apply to these <u>products pressure receptacles</u>, tanks, battery vehicles/battery wagons or MEGCs constructed <u>according to that type approval</u> before the <u>its</u> expiry or the <u>its</u> withdrawal if they may continue to be used. They may continue to be used as long as they remain in conformity with the requirements of RID/ADR. If they are no longer in conformity with the requirements of RID/ADR they may continue to be used only if such use is permitted by relevant transitional measures in Chapter 1.6.

Type approvals may be renewed on the basis of by a complete review and assessment a new type examination for conformity. Results of the previous type examination tests shall be taken into account if these tests are still in accordance with the provisions of RID/ADR applicable at the date of renewal. Renewal is not permitted after a type approval has been withdrawn. Interim amendments of an existing type approval (e.g. for pressure receptacles minor amendments such as the addition of further sizes or volumes not affecting conformity, or for tanks see 6.8.2.3.32) do not extend or modify the original validity of the certificate.

NOTE: The review and assessment of conformity type examination for renewal can be done by an inspection body other than the one which issued the original type approval examination report.

The issuing body shall keep all documents for the type approval (see 1.8.7.7.1) for the whole period of validity including its renewals if granted.

1.8.7.2.52.3 In the case of a modification of a <u>product pressure receptacle</u>, tank, battery wagon/battery vehicle or MEGC-with a valid, expired or withdrawn type approval, the <u>relevant type examination</u>, testing, inspection and approval are limited to the parts of the <u>product pressure receptacle</u>, tank, battery wagon/battery vehicle or MEGC that have been modified.

The modification shall meet the provisions of RID/ADR applicable at the time of the modification. For all parts of the <u>product pressure receptacle</u>, tank, battery-wagon/battery vehicle or MEGC not affected by the modification, the documentation of the initial type approval remains valid.

A modification may apply to one or more <u>product(s)</u> <u>pressure receptacle</u>, <u>tank</u>, <u>battery wagon/battery vehicle or MEGC</u> covered by <u>a the same</u> type approval.

Where the modified product pressure receptacle, tank, battery wagon/battery vehicle or MEGC satisfies all applicable provisions, a supplementary approval A certificate approving for of the modification shall be issued to the owner or operator applicant by the competent authority or inspection body of any RID Contracting State/Contracting Party to ADR or by a body designated by this authority in conformity with Chapters 6.2 and 6.8. For tanks, battery-vehicles/battery-wagons or MEGCs, a copy shall be kept as part of the tank record.

Each application for an approval certificate for a modification shall be lodged by the applicant with a single competent authority or body designated by this authority.

#### 1.8.7.3 Supervision of manufacture

- 1.8.7.3.1 The manufacturing process shall be subject to a survey by the relevant body to ensure the product is produced in conformity with the provisions of the type approval.
- 1.8.7.3.2 The <u>manufacturer applicant</u>-shall take all the necessary measures to ensure that the manufacturing process complies with the applicable provisions of RID/ADR and of the

type approval certificate, and its annexes—the technical documentation according to 1.8.7.8.3 and reports.

#### 1.8.7.3.23 The manufacturing process shall be subject to supervision by the relevant body.

The relevant body shall:

- (a) Verify the conformity with the technical documentation specified in 1.8.7.<u>8</u>7.<u>3</u>2 and with the applicable provisions of RID/ADR and of the type approval certificate and the technical documentation according to 1.8.7.8.1 and 1.8.7.8.2 and reports;
- (b) Verify that the manufacturing process produces products in conformity with the requirements and the documentation which apply to it;
- (c) Verify the traceability of materials and check the material(s) certificate(s) against the specifications;
- (d) As applicable, verify that the personnel undertaking the permanent joining of parts and the non-destructive tests are qualified or approved;
- (e) Agree with the <u>manufacturer</u> applicant on the location where the examinations and necessary tests are to be carried out; and
- (f) Record-Provide a written report of the results of its survey-the supervision of manufacture.

#### 1.8.7.4 Initial inspection and tests

#### 1.8.7.4.1 The manufacturer applicant shall:

- (a) Affix the marks specified in RID/ADR; and
- (b) Supply to the relevant body the technical documentation specified in 1.8.7.8.47.

#### 1.8.7.4.2 The relevant body shall:

- (a) Perform the necessary examinations and tests in order to verify that the product is manufactured in accordance with the type approval and the relevant provisions;
- (b) Check the certificates supplied by the manufacturers of service equipment against the service equipment;
- (c) Issue an initial inspection and tests report to the applicant relating to the detailed tests and verifications carried out and the verified technical documentation;
- (d) <u>Issue Draw up</u> an <u>written certificate of conformity of the manufacture initial inspection and tests certificate</u> and affix its <u>[registered]</u> mark when the manufacture satisfies the provisions; and
- (e) Check if the type approval remains valid after provisions of RID/ADR (including the referenced standards) relevant to the type approval have changed. If the type approval is no longer valid, the relevant body shall issue a refusal inspection report and inform the competent authority or the inspection body which issued the type approval certificate.

The certificate in (d) and report in (c) may cover a number of <u>products</u> items of the same type (group certificate or report).

#### 1.8.7.4.3 The certificate shall contain as a minimum:

(a) The name and address of the <u>relevant inspection</u> body <u>and the name and address</u> of the in-house inspection service when applicable;

- (b) The name and address of the manufacturer-and the name and address of the applicant, if not the manufacturer;
- (c) The place of the initial inspection;
- (ed) A reference to the version of the RID/ADR and the standards used for the initial inspections and tests;
- (de) The results of the inspections and tests;
- (ef) The data for identification of the inspected product(s), at least the serial number or for non refillable cylinders the batch number; and
- (fg) The type approval number-; and
- (h) The reference to the certificate of authorisation of the in-house inspection service when applicable.

#### 1.8.7.5 Entry into service verification

- 1.8.7.5.1 If an entry into service verification is required by the competent authority under 6.8.1.5.5, the owner or operator shall engage a single inspection body to carry out this inspection and shall provide it with the type approval certificate and the technical documentation specified in 1.8.7.8.4.
- 1.8.7.5.2 The inspection body shall review the documentation and:
  - (a) Perform external checks (e.g. marking, condition);
  - (b) Verify conformity with the type approval certificate;
  - (c) Verify the validity of the approvals of the inspection bodies who performed the previous inspections and tests;
  - (d) Verify that the transitional measures of 1.6.3 or 1.6.4 have been fulfilled.
- 1.8.7.5.3 The inspection body shall issue an entry into service verification report that contains the results of the assessment. The owner or operator shall present this report at the request of the competent authority requiring the entry into service verification, and to the inspection body(ies) in charge of subsequent inspections and tests.

<u>In the event of a failed entry into service verification, the non-conformities shall be</u> rectified and a new entry into service verification passed before the tank is used.

The inspection body in charge of the entry into service verification shall, without delay, inform its competent authority of any refusal.

- 1.8.7.65 Periodic inspection, intermediate inspection and exceptional inspection checks
- $1.8.7.\underline{65}.1$  The relevant body shall:
  - (a) Perform the identification and verify the conformity with the documentation;
  - (b) Carry out the inspections and witness the tests in order to check that the requirements are met;
  - (c) Issue reports of the results of the inspections and tests, which may cover a number of products-items; and
  - (d) Ensure that the required marks are applied.
- 1.8.7.<u>6</u>5.2 Reports of periodic inspections and tests of pressure receptacles shall be retained by the applicant owner or operator at least until the next periodic inspection.

NOTE: For tanks, see provisions for tank records in 4.3.2.1.7.

#### 1.8.7.76 Surveillance of the applicant's in-house inspection service

- 1.8.7.76.1 The manufacturer in the case of initial inspection and supervision of manufacture in conformity with Chapters 6.2 and 6.8, or the testing facility in the case of periodic inspection in conformity with Chapter 6.2 applicant shall:
  - (a) Implement an in-house inspection service with a quality system, including technical procedures, for inspections and tests documented in 1.8.7.87.65 and subject to surveillance;
  - (b) Fulfil the obligations arising out of the quality system as approved and to ensure that it remains satisfactory and efficient in particular:
    - (ie) Appoint trained and competent personnel for the in-house inspection service; and
    - (iid) Affix the [registered] identity mark of the inspection body, and the mark of the in-house inspection service where appropriate on the product to ensure traceability.
- 1.8.7.76.2 The inspection body shall carry out an initial audit <u>at each site</u>. If satisfactory the inspection body shall issue an <u>certificate of</u> authorisation for a period not exceeding three years. The following provisions shall be met:
  - (a) This audit shall be undertaken at each site to confirm that the inspections and tests performed on the product are in compliance with the requirements of RID/ADR;
  - (b) The inspection body may authorise the in-house inspection service—of the applicant to affix the [registered] identity mark of the inspection body to each approved product;
  - (c) The authorisation may be renewed after a satisfactory audit at each site in the last year prior to the expiry. The new period of validity shall begin with the date of expiry of the authorisation; and
  - (d) The <u>auditors inspectors</u> of the inspection body <u>undertaking the audits</u> shall be competent to carry out the assessment of conformity of the product covered by the quality system and to assess the quality system itself; and
  - (e) The in-house inspection service shall be engaged in activities at a frequency which ensures the necessary level of competence.

The in-house inspection service shall not subcontract part of its activity.

#### 1.8.7.7.3 The certificate of authorisation shall contain as a minimum:

- (a) The name and address of the inspection body;
- (b) The name and address of the manufacturer or testing facility and addresses of all in-house inspection service sites;
- (c) A reference to the version of RID/ADR used for authorisation of the in-house inspection service and standards or recognised technical codes according to 6.2.5 used for initial inspection and tests or periodic inspections;
- (d) The reference to the initial audit report;
- (e) As necessary, further information to define the scope of the in-house inspection service (e.g. type approvals of the products for initial inspection and tests, etc.);
- (f) The mark of the in-house inspection service, if applicable; and
- (g) The expiry date.

- 1.8.7.76.43 The inspection body shall carry out periodic audits <u>at each site</u> within the duration of the authorisation to make sure that the <u>applicant-in-house inspection service</u> maintains and applies the quality system, <u>including the technical procedures</u>. The following provisions shall be met:
  - (a) A minimum of two <u>The</u> audits shall be carried out <u>at least every 6 in a 12-months.</u> period;
  - (b) The inspection body may require additional visits, training, technical changes, modifications of the quality system, restrict or prohibit the inspections and tests to be done by the applicant-in-house inspection service;
  - (c) The inspection body shall assess any changes in the quality system and decide whether the modified quality system will-still satisfiesy the requirements of the initial audit or whether a full reassessment is required;
  - (d) The <u>inspectors auditors</u> of the inspection body <u>undertaking the audits</u> shall be competent to carry out the assessment of conformity of the product covered by the quality system and to assess the quality system itself; and
  - (e) The inspection body shall provide the manufacturer or the testing facility, as applicable, and the applicant in-house inspection service, with a visit or audit the report of the audit and, if tests have taken place, with a test report.
- 1.8.7.76.53 In cases of non-conformity with the relevant requirements the inspection body shall ensure that corrective measures are taken. If corrective measures are not taken in due time, the inspection body shall suspend or withdraw the permission for the in-house inspection service to carry out its activities. The notice of suspension or withdrawal shall be transmitted to the competent authority. A report shall be provided to the manufacturer or the testing facility, as applicable, and to the in-house inspection service applicant giving detailed reasons for the decisions taken by the inspection body.

#### 1.8.7.87 *Documents*

The technical documentation shall enable an assessment to be made of conformity with the relevant requirements.

1.8.7.<u>8</u>7.1 Documents for <u>the type approval examination</u>

The manufacturer applicant shall provide as appropriate:

- (a) The list of standards used for the design and manufacture;
- (b) A description of the type including all variations;
- (c) The instructions according to the relevant column of table A of Chapter 3.2 or a list of dangerous goods to be transported for dedicated products;
- (d) A general assembly drawing or drawings;
- (e) The detailed drawings, including the dimensions used for the calculations, of the product, the service equipment, the structural equipment, the marking and/or the labelling necessary to verify the conformity;
- (f) The calculation notes, results and conclusions;
- (g) The list of the service equipment with the relevant technical data and information on the safety devices including the calculation of the relief capacity if relevant;
- (h) The list of material requested in the standard for manufacture used for every part, sub-part, lining, service and structural equipment and the corresponding material specifications or the corresponding declaration of conformity to RID/ADR;
- (i) The approved qualification of permanent joining processes;

- (j) The description of the heat treatment process(es); and
- (k) The procedures, descriptions and records of all relevant tests listed in the standards or RID/ADR for the type approval and for the manufacture.

#### 1.8.7.8.2 Documents for the type approval certificate issue

The manufacturer shall provide as appropriate:

- (a) The list of standards used for the design and manufacture;
- (b) A description of the type, including all variations;
- (c) The instructions according to the relevant column of table A of Chapter 3.2 or a list of dangerous goods to be transported for dedicated products;
- (d) A general assembly drawing or drawings;
- (e) The list of materials in contact with the dangerous goods;
- <u>(f)</u> The list of service equipment;
- (g) The type-examination report; and
- (h) Further documents mentioned under 1.8.7.8.1 on request of the competent authority or inspection body.

## 1.8.7.<u>8</u>7.<u>3</u>2 Documents for the supervision of manufacture

The manufacturer applicant shall make available provide as appropriate:

- (a) The documents listed in 1.8.7.87.1 and 1.8.7.8.2;
- (b) A copy of the type approval certificate;
- (c) The manufacturing procedures including test procedures;
- (d) The manufacturing records;
- (e) The approved qualifications of permanent joining operators;
- (f) The approved qualifications of the non destructive test operators;
- (g) The reports of the destructive and non destructive tests;
- (h) The heat treatment records; and
- (i) The calibration records.

#### 1.8.7.87.43 Documents for initial inspection and tests, and for entry into service verification

The manufacturer for initial inspection and tests, and the owner or operator for the entry into service verification applicant shall make available provide as appropriate:

- (a) The documents listed in 1.8.7.87.1, 1.8.7.8.2, and 1.8.7.87.32;
- (b) The material certificates of the product and any sub-parts <u>including the service</u> equipment;
- (c) The <u>declarations certificates</u> of conformity <u>and material certificates</u> of the service equipment; and
- (d) A declaration of conformity including the description of the product and all the variations adopted from the type approval.

1.8.7.<u>8</u>7.<u>5</u>4 Documents for periodic inspections, intermediate inspections and exceptional inspection-checks

The applicant owner or operator, or its authorised representative shall-make available provide as appropriate:

- (a) For pressure receptacles, the documents specifying special requirements when the manufacturing and periodic inspections and tests standards so require;
- (b) For tanks:
  - (i) the tank record; and
  - (ii) one or more of the any relevant documents mentioned in 1.8.7.87.1 to 1.8.7.87.43 if requested by the inspection body.
- 1.8.7.<u>8</u>7.<u>6</u>5 Documents for the <u>surveillance</u> <u>assessment</u>-of in-house inspection service

The applicant for in-house inspection service shall make available provide the quality system documentation as appropriate:

- (a) The organizational structure and responsibilities;
- (b) The relevant inspection and test, quality control, quality assurance and process operation instructions, and systematic actions that will be used;
- (c) The quality records, such as inspection reports, test data, calibration data and certificates;
- (d) The management reviews to ensure the effective operation of the quality system arising from the <u>on-site</u> audits in accordance with 1.8.7.<u>76</u>;
- (e) The process describing how customer and regulation requirements are met;
- (f) The process for control of documents and their revision;
- (g) The procedures for dealing with non-conforming products; and
- (h) The training programmes and qualification procedures for relevant personnel.
- 1.8.7.8 Products manufactured, approved, inspected and tested according to standards

The requirements of 1.8.7.7 are considered to have been complied with if the following standards, as relevant, are applied:

Applicable subsection and paragraph	References	Title of the document
1.8.7.7.1 to 1.8.7.7.4	EN 12972:2018	Tanks for transport of dangerous goods Testing, inspection and marking of metallic tanks

# Annex III - Proposed amendments to Section 1.8.6

1.8.6 Administrative controls for the activities application of the conformity assessments, periodic inspections, intermediate inspections and exceptional checks described in 1.8.7 and 1.8.8

#### <u>1.8.6.1</u> <u>General Rules</u>

The competent authority of an RID Contracting State/a Contracting Party to ADR may approve inspection bodies for conformity assessments, periodic inspections, intermediate inspections, exceptional <u>inspections</u>—checks, entry into service verifications and surveillance of the in-house inspection service as specified in 1.8.7 relevant in Chapters 6.2 and 6.8.

- 1.8.6.2 Operational o<u>O</u>bligations for <u>of</u> the competent authority, its delegate or inspection body
- When the competent authority approves an inspection body, the approval scheme shall be based on EN ISO/IEC 17020:2012 (except clause 8.1.3) type A, or type B when allowed in Chapter 6.2.

Except when 6.2.2.11, 6.2.3.6 and TA4 and TT9 of 6.8.4 apply, competent authorities may decide not to use accreditation according to EN ISO/IEC 17020:2012. In these circumstances 1.8.6.2.4 applies.

When the competent authority does not approve inspection bodies but performs these tasks itself, the competent authority shall meet the provisions of 1.8.6.3.

- 1.8.6.<del>1.2.2</del> Approval of inspection bodies
- 1.8.6.2.2.1 The inspection body shall be established under domestic law and be a legal entity in a RID Contracting State/Contracting Party to ADR where the application for approval is made.
- 1.8.6.2.2.2 The period of validity of the approval issued by the competent authority shall not exceed 5 years. Within this period, the approval ends as soon as the inspection body does not meet the conditions for its approval. However, in the case of suspension of the accreditation, the approval is only suspended during the suspension period of the accreditation.
- 1.8.6.2.2.3 An inspection body starting a new activity may be approved temporarily. Before temporary approval, the competent authority shall ensure that the inspection body meets the requirements of 1.8.6.3.1 the standard EN ISO/IEC 17020:2012 (except clause 8.1.3). The inspection body shall be accredited according to EN ISO/IEC 17020:2012 (except clause 8.1.3) or approved according to 1.8.6.2.4 in its first year of activity to be able to continue this new activity.

#### 1.8.6.2.3 *Monitoring of inspection bodies*

1.8.6.6-2.3.1 Wherever the activities of an inspection body are conducted. The competent authority that approved this body shall ensure the monitoring of thise inspection bodyies, including on-site monitoring, and The competent authority shall revoke or restrict the approval given; if it notes that an this approved inspection body is no longer in compliance with the approval, and the requirements of 1.8.6.3.1 1.8.6.8 or does not follow the procedures specified in the provisions of RID/ADR.

**NOTE:** Monitoring of subcontractors as mentioned in 1.8.6.3.3 by the inspection body shall also be included in the monitoring of the inspection body.

1.8.6.7-2.3.2 If the approval of the inspection body is revoked or restricted or if the inspection body ceased activity, the competent authority shall take the appropriate steps to ensure that the files are either processed by another inspection body or kept available.

#### 1.8.6.2.4 Notification and approval of national systems

National systems for approving and monitoring of inspection bodies shall be equivalent to EN ISO/IEC 17011:2017 Part 7 and to EN ISO/IEC17020:2012 (except clause 8.1.3) and shall be notified to and considered by the Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods (Joint Meeting) and then approved by the RID Committee of Experts/the Working Party on the Transport of Dangerous Goods using the following procedure:

- (a) The RID Contracting State/Contracting Party to ADR shall submit the description of their national system in English to the Joint Meeting;
- (b) The Joint Meeting shall determine whether the national system is equivalent to the provisions of this section and make a decision within a period of twelve months;
- (c) The decision of the Joint Meeting shall be sent to the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods for approval;
- (d) Following approval, the secretariat of OTIF/UNECE shall publish a list of the RID Contracting States/Contracting Parties to ADR that have implemented an approved national system;
- (e) If a revised version of either of the standards mentioned above has been adopted, the competent authority shall reassess their national system. If the changes affect the national system, this system shall be revised to reflect the changes. The revised national system shall then be re-submitted to the Joint Meeting.
- 1.8.6.<del>3.</del>2.5 *Information obligations*
- 1.8.6.2.5.1 RID Contracting States/Contracting Parties to ADR shall publish their national procedures for the assessment, appointment approval and monitoring of inspection bodies and of any changes to that information.
- 1.8.6.2.5.2 The competent authority of the RID Contracting State/Contracting Party to ADR shall publish an up-to-date list with of all the inspection bodies it has approved in their country, including inspection bodies approved temporarily as described in 1.8.6.2.2.3.

  A reference to this list shall be made on the website of the OTIF/UNECE. This list shall at least contain the following information:
  - (a) Approved offices and Address(es) of the office(s) of the inspection body;
  - (b) The scope of activities for which the inspection body is approved;
  - (c) An indication if the inspection body is accredited according to EN ISO/IEC 17020:2012 (except clause 8.1.3) by the national accreditation body and if so the type of accreditation;
  - (d) The stamp of the inspection body.
- 1.8.6.2.5.3 The competent authority of each RID Contracting State/Contracting Party to ADR may recognize the inspection bodies approved by the competent authority of other RID Contracting States/Contracting Parties to ADR to perform inspections on its behalf in their country, only on the basis of the list referred to in 1.8.6.2.5.2. The RID Contracting State/Contracting Party to ADR shall add this information to the list mentioned in 1.8.6.2.5.2 and inform the secretariat of OTIF/UNECE.

NOTE: In that context, reciprocal recognition agreements between RID Contracting States/Contracting Parties to ADR shall be respected.

- 1.8.6.2.3 Operational oObligations for of the competent authority, its delegate or inspection bodiesy
- 1.8.6.<del>8.</del>3.1 *General rules*

The inspection body shall:

- (a) Have a staff with an organizational structure, capable, trained, competent and skilled, to satisfactorily perform its technical functions;
- (b) Have access to suitable and adequate facilities and equipment;
- (c) Operate in an impartial manner and be free from any influence which could prevent it from doing so;
- (d) Ensure commercial confidentiality of the commercial and proprietary activities of the manufacturer and other bodies;
- (e) Maintain clear demarcation between actual inspection body functions and unrelated functions;
- (f) Have a documented quality <u>management system, equivalent to that set out in EN ISO/IEC 17020:2012</u> (except clause 8.1.3);
- (g) Ensure that the tests and inspections specified in the relevant standards and in RID/ADR are performed;
- (h) Maintain an effective and appropriate report and record system in accordance with 1.8.7 and 1.8.8;
- (i) Be free from any commercial or financial pressure and not remunerate its personnel depending on the number of the inspections carried out or on the results of those inspections;
- (j) Have a liability insurance covering the risks in relation to the conducted activities;
  - NOTE: This is not necessary if the RID Contracting State/Contracting Party to ADR assumes liability in accordance with domestic law.
- (k) Have person(s) responsible for carrying out the inspections who:
  - Shall not be directly involved in the design, manufacture, supply, installation, use or maintenance of the product (pressure receptacle, tank, battery-vehicle/battery-wagon or MEGC) to be inspected;
  - Shall attend a training covering all the aspects of the activities in relation to which the body has been appointed;
  - Shall have appropriate knowledge, technical skills and understanding of the applicable requirements, of the applicable standards and of the relevant provisions of Parts 4 and 6;
  - Shall have the ability to draw up certificates, records and reports demonstrating that assessments have been carried out;
  - Shall observe professional secrecy with regard to information obtained in carrying out their tasks or any provision of domestic law giving effect to it, except in relation to the competent authorities of the RID Contracting State/Contracting Party to ADR in which its activities are carried out. At the request of other inspection bodies, information may be shared as far as necessary for the performance of inspections and tests.

The inspection body shall additionally be accredited according to the standard EN ISO/IEC 17020:2012 (except clause 8.1.3), as specified in 6.2.2.11, 6.2.3.6 and TA4 and TT9 of 6.8.4.

These requirements of this section are deemed to be met if the inspection body is in compliance with EN ISO/IEC 17020:2012 (except clause 8.1.3). Compliance with this

standard is not mandatory to be appointed as an inspection body for activities other than as specified in 6.2.2.11, 6.2.3.6 and TA4 and TT9 of 6.8.4.

- 1.8.6.3.2 Operational obligations for the competent authority, its delegate or inspection body
- 1.8.6.3.2.1 The competent authority, its delegate or inspection body shall carry out conformity assessments, periodic inspections, intermediate inspections, and exceptional inspections checks and entry into service verifications in a proportionate manner, avoiding unnecessary burdens. The competent authority, its delegate or inspection body shall perform its activities taking into consideration the size, the sector and the structure of the undertakings involved, the relative complexity of the technology and the serial character of production.
- 1.8.6.3.2.2 Nevertheless tThe competent authority, its delegate or inspection body shall respect the degree of rigour and the level of protection required for the compliance of the transportable equipment by with the provisions of Parts 4 and 6 as applicable.
- 1.8.6.3.2.3 Where a competent authority, its delegate or inspection body finds out that requirements laid down in Parts 4 or 6 have not been met by the manufacturer, it shall require the manufacturer to take appropriate corrective measures and it shall not issue any type approval certificate or initial inspection and test certificate of conformity until the appropriate corrective measures have been fulfilled.
- 1.8.6.4.3.3 Delegation of inspection tasks

**NOTE:** In-house inspection services according to  $1.8.7.\underline{76}$  are not covered by 1.8.6.3.34.

- 1.8.6.4.3.3.1 Where an inspection body uses the services of any other entity (e.g. a subcontractor, subsidiary), to carry out specific tasks connected with the conformity assessment, periodic inspection, intermediate inspection or exceptional inspection-checks, this entity the subcontractor shall be included in the accreditation of assessed and monitored by the inspection body, or it shall be accredited separately. In the case of separate accreditation, this entity the subcontractor shall be duly accredited according to standard EN ISO/IEC 17025:2005 and shall be recognized by the inspection body as an independent and impartial testing laboratory in order to perform testing tasks in accordance with its accreditation, or it shall be accredited according to standard or EN ISO/IEC 17020:2012 (except clause 8.1.3) as an independent and impartial testing laboratory or inspection body in order to perform testing tasks in accordance with its accreditation. The inspection body shall ensure that this subcontractor entity-meets the requirements set out for the tasks given to it with the same level of competence and safety as laid down for inspection bodies (see 1.8.6.3.1 1.8.6.8) and the inspection body shall monitor it. The inspection body shall inform the competent authority about the above mentioned arrangements.
- 1.8.6.4.3.3.2 The inspection body shall take full responsibility for the tasks performed by such entities subcontractors wherever the tasks are performed by them.
- 1.8.6.4.3.3.3 The inspection body shall not delegate the whole task of conformity assessment, periodic inspection, intermediate inspection or exceptional <u>inspection-cheeks</u>. In any case, the assessment and the issue of certificates shall be carried out by the inspection body itself.
- 1.8.6.4.3.3.4 Activities shall not be delegated without the agreement of the applicant manufacturer, owner or operator as appropriate.
- 1.8.6.4.3.3.5 The inspection body shall keep at the disposal of the competent authority the relevant documents concerning the assessment of the qualifications and the work carried out by the above mentioned <u>subcontractors</u> <u>entities</u>.
- 1.8.6.5.3.4 Information obligations for inspection bodies

Any inspection body shall inform the competent authority, which had approved it, of the following:

- (a) Except when the provisions of 1.8.7.2.<u>2.24</u> apply, any refusal, restriction, suspension or withdrawal of type approval certificates;
- (b) Any circumstance(s) affecting the scope of and conditions for the approval as granted by the competent authority;
- (c) Any request for information on conformity assessment activities performed which they have received from competent authorities monitoring compliance according to 1.8.1 or 1.8.6.6 this section;
- (d) On request, all conformity assessment activities performed within the scope of their approval, and any other activity performed, including delegation of tasks.

# Annex IV - Consequential amendments

#### Chapter 1.2

1.2.1 In the definition of "Conformity assessment" replace "type approval" by "type examination".

#### Chapter 1.4

- 1.4.2.2.1 (d) Replace "test" by "inspection".
- 1.4.3.3 (b) Replace "test" by "inspection".
- 1.4.3.4 (a) Replace "tests" by "inspections and tests".
- 1.4.3.4 (b) The amendment does not apply to the English text.
- 1.4.3.4 (c) Replace "exceptional check" by "exceptional inspection".

(RID:)

1.4.3.5 (a) Replace "tests" by "inspections and tests".

(RID:)

1.4.3.5 (b) Replace "exceptional check" by "exceptional inspection".

## Chapter 1.6

(ADR:)

- 1.6.3.2 Replace "tests" by "inspections".
- 1.6.3.8 Replace "test" by "inspection".

(ADR:)

- 1.6.3.33 The amendment does not apply to the English text.
- 1.6.4.5 Replace "test" by "inspection".
- 1.6.4.32 The amendment does not apply to the English text.

#### Chapter 1.8

- 1.8.8 (a) Replace "1.8.7.5" by "1.8.7.6".
- 1.8.8.1.4 Replace "1.8.7.6 excluding 1.8.7.6.1 (d) and 1.8.7.6.2 (b)" by "1.8.7.7 excluding 1.8.7.7.1 (d) and 1.8.7.7.2 (b)".
- 1.8.8.6 Replace "1.8.7.6 excluding 1.8.7.6.1 (d) and 1.8.7.6.2 (b)" by "1.8.7.7 excluding 1.8.7.7.1 (d) and 1.8.7.7.2 (b)".
- 1.8.8.7 Replace "1.8.7.7.1, 1.8.7.7.2, 1.8.7.7.3 and 1.8.7.7.5" by "1.8.7.8.1, 1.8.7.8.2, 1.8.7.8.3, 1.8.7.8.4 and 1.8.7.8.6".

#### Chapter 4.3

- 4.3.1.4 Replace "tests" by "inspections and tests".
- 4.3.2.1.5 Replace "6.8.2.3.1" by "6.8.2.3.2".
- 4.3.2.1.7 In the last paragraph, replace the word "expert" by "inspection body" and the wording "tests, inspections and checks" by "tests and inspections", and replace the wording "of periodic inspections or exceptional checks" by "of periodic or exceptional inspections".

4.3.3.2.5 Replace the wording "the expert approved by the competent authority" by "the inspection body" twice.

## Chapter 4.7

(ADR:)

NOTE 2 Replace "tests" by "inspections and tests".

# Chapter 6.2

6.2.2.11 Replace "1.8.7.5" by "1.8.7.6".

In Xa, Xb and IS, replace "1.8.6.2, 1.8.6.4, 1.8.6.5 and 1.8.6.8" by "1.8.6.3".

6.2.3.6.1 Replace "1.8.7.5" by "1.8.7.6".

6.2.4.1 Replace "1.8.7.2.4" by "1.8.7.2.2.2".

# Chapter 6.9

- 6.9.4.4.1 Delete "or a body designated by that authority".
- Replace the wording "the expert approved by the competent authority" by "the inspection body".