Economic Commission for Europe
Inland Transport Committee
Working Party on the Transport of Dangerous Goods
107th session
Geneva, 11–15 November 2019

Report of the Working Party on its 107th session

Held in Geneva from 11 to 15 November 2019

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**II.** Guideline for the application of footnote 3 of ADR 6.8.2.1.18 ... 17
I. Attendance

1. The Working Party on the Transport of Dangerous Goods held its 107th session from 11 to 15 November 2019, with Ms. A. Roumier (France) as Chair and Mr. A. Simoni (Italy) as Vice-Chair.

2. Representatives from the following countries took part in the session: Austria, Belarus, Belgium, Czechia, Denmark, Finland, France, Georgia, Germany, Hungary, Italy, Latvia, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Russian Federation, Slovakia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

3. Representatives of Algeria, Jordan, Morocco, Nigeria and Tunisia also took part in the session, as provided for in paragraph 11 of the terms of reference of the Economic Commission for Europe. The representative of Morocco, Nigeria and Tunisia took part in the session as full members in respect of questions relating to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), in accordance with rule 1 (b) of the rules of procedure of the Working Party.

4. The European Union was represented.

5. The following intergovernmental organization was represented: Intergovernmental Organisation for International Carriage by Rail (OTIF).

6. The following non-governmental organizations were represented: Council on Safe Transportation of Hazardous Articles (COSTHA); European Chemical Industry Council (CEFIC); European Conference of Fuel Distributors (ECFD); and International Road Transport Union (IRU). The Euromed project was also represented.

II. Adoption of the agenda (agenda item 1)

Documents: ECE/TRANS/WP.15/247 and ECE/TRANS/WP.15/247/Add.1 (Secretariat)
Informal documents: INF.1 and INF.2 (Secretariat)

7. The Working Party adopted the provisional agenda prepared by the secretariat, as amended by informal document INF.2, to take account of informal documents INF.1 to INF.30.

III. Eighty-first session of the Inland Transport Committee (agenda item 2)

Documents: ECE/TRANS/288, ECE/TRANS/288/Add.1 and ECE/TRANS/288/Add.2 (Secretariat); ECE/TRANS/WP.15/246, paragraph 10
Informal document: INF.29 (Turkey)

A. Report of the Inland Transport Committee on its eightieth session

8. The Working Party noted that the report of the Inland Transport Committee (ITC) on its eightieth session was available on the Economic Commission for Europe (ECE) website in English, French and Russian.

B. ITC strategy until 2030 and draft recommendations

9. At the last session of the Working Party, the Director of the Sustainable Transport Division presented the main elements of the ITC strategy until 2030 and stressed that the Working Party should take appropriate measures to align its work with the adopted strategy. Since the last session, the Chair of the Working Party had transmitted to the participants in the Working Party, for their views and input, an explanatory note from the secretariat together with the draft recommendations of ITC to improve national road safety systems.
10. The Working Party approved these draft recommendations and confirmed that its work and ADR were fully in line with the ITC strategy.

11. The Working Party recalled that, in order to facilitate the implementation of ADR and to improve road safety, it was also recommended to align national laws on the transport of dangerous goods with ADR as far as possible. ITC might also wish to adopt this recommendation.

12. The Working Party welcomed the presentation by the representative of Turkey on the benefits of participating in the sessions of the Working Party and endorsed the 15 points presented and included in informal document INF.29. The Working Party also endorsed the statement in the ITC draft recommendations that participation in the activities of intergovernmental platforms was necessary for working out best practices and new developments to be integrated into national road safety systems in order to keep them up to date.

13. The representative of Tunisia and the representative of the Euromed project recalled that the absence of an Arabic version of ADR was a major obstacle to accession in some countries. The Working Party noted that discussions were still ongoing to establish a partnership with the language services of the United Nations Office at Geneva, subject to the availability of the necessary funding. The representative of the Euromed project pointed out that such funding could be covered by the Euromed project for the translation of a first consolidated version of ADR but that a long-term solution should be found for taking into account the amendments made every two years.

14. The representative of the Netherlands wished to recall his country’s political commitment to improving safety and reducing the environmental footprint of transport operations. The objectives of the Netherlands included:

(a) Reducing vehicle emissions through the use of alternative fuels and other propulsion systems such as electric motors;
(b) The use of driver assistance systems to prevent accidents;
(c) Fire prevention;
(d) Recycling and reuse of packaging materials;
(e) Design and use of safe packaging.

15. The representative of the Netherlands indicated that he supported further work on these issues in the Working Party with a view to achieving the sustainable development goals set out in the ITC strategy for 2030.

IV. Status of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) and related issues (agenda item 3)

16. The Working Party noted that there were no new contracting parties to ADR.

17. The Working Party noted that 13 countries (Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Georgia, Iceland, Kazakhstan, Montenegro, Morocco, Nigeria, North Macedonia, San Marino and Tajikistan) had not yet deposited the required instruments for the Protocol to enter into force and encouraged them to take the necessary measures to ratify or accede to it so that it could do so. The Working Party noted with satisfaction that the Ministry of Foreign Affairs of Malta had transmitted to the secretariat its instrument of accession to the Protocol of 1993 and had contacted the Office of Legal Affairs of the United Nations for that document to be submitted to the depositary.1

V. Work of the RID/ADR/ADN Joint Meeting (agenda item 4)

Documents: ECE/TRANS/WP.15/AC.1/2019/22/Add.1 and ECE/TRANS/WP.15/AC.1/156 and ECE/TRANS/WP.15/AC.1/156/Add.1 (report of the Joint Meeting on its autumn 2019 session)

Informal documents: INF.4 (Switzerland), INF.7 (Secretariat), INF.17 and Add.1 (Secretariat), INF.25 (Switzerland), INF.26 (France), INF.27 (Secretariat)

A. General

18. The Working Party endorsed the amendments adopted by the Joint Meeting with some changes (see annex I).

B. Specific issues

1. Report of the informal working group of the Joint Meeting on the inspection and certification of tanks

Informal document: INF.26 (France)

19. The Working Party noted that the amendment proposals of the informal working group of the Joint Meeting on the inspection and certification of tanks would be discussed at the spring 2020 session of the Joint Meeting and that the Working Party could be asked to formally adopt those amendments at its next session.

20. The Working Party invited delegations wishing to do so to send their comments and proposals on the draft amendments to the Chair of the informal working group as soon as possible and before the next session of the informal group, scheduled for 11–13 December 2019.

2. Reference to packing instruction P801 in packing instruction P003, special packing provision PP16

Informal document: INF.27 (Secretariat)

21. The Working Party adopted the changes to the amendment to packing instruction P003, special packing provision PP16, in informal document INF.7 so that Note 2 of that packing provision referred to packing instruction P801 as a whole (see annex I).

22. Several delegations were of the opinion that the texts of those packing instructions could be clarified in the future with regard to their use for UN No. 2800. The Working Party invited delegations that so wished to submit proposals towards that end to the Joint Meeting.

3. Guidelines for the use of 5.4.0.2

Informal document: INF.17 and Add.1 (Secretariat)

23. The Working Party welcomed the results achieved by the Joint Meeting informal working group on telematics.

24. The Working Party requested the secretariat to publish the guidelines for the use of subsection 5.4.0.2 of RID/ADR/ADN, as contained in informal document INF.17/Add.1 and with some drafting changes, on the ECE website in order to facilitate their use on a voluntary and consistent basis.

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2 Mr. Steve GILLINGHAM, steve.gillingham@dft.gov.uk.
4. **Packagings for UN No. 3549**

*Informal document: INF.25 (Switzerland)*

25. The proposal of Switzerland sought to amend 4.1.8.6 in order to make it possible to use plastic packagings beyond their period of validity of five years, as was already the case for infectious substances of Category A.

26. The Working Party invited the representative of Switzerland to present this document to the Joint Meeting as an official document. Pending a decision by the Joint Meeting at its spring 2020 session, the Working Party withdrew the amendment to 4.1.8.6 of informal document INF.7 (see annex I).

27. The Working Party noted that the representative of Switzerland would also submit an informal document on this subject to the Sub-Committee of Experts on the Transport of Dangerous Goods at its fifty-sixth session (4–10 December 2019).

5. **Changes of the loaded products in tank-vehicles**

*Informal document: INF.4 (Switzerland)*

28. The Working Party noted the conclusions of the Working Group on Tanks of the Joint Meeting concerning document ECE/TRANS/WP.15/2019/9 (Switzerland) and informal document INF.18 (United Kingdom) of the previous session (see ECE/TRANS/WP.15/AC.1/156/Add.1, paras. 21–26).

29. The delegation of the United Kingdom supported the proposal of Switzerland concerning the information to be provided on the orange plate for fuel tanks in the event of a change of the loaded goods as proposed in informal document INF.4. The other delegations that spoke did not support the proposal.

30. The representative of Switzerland would reconsider his proposal in consultation with the representative of the United Kingdom.

VI. **Proposals for amendments to annexes A and B of ADR (agenda item 5)**

A. **Construction and approval of vehicles**

1. **Informal working group on clarification of 9.3.4.2**

*Informal document: INF.3 (Germany)*

31. The Working Party noted the progress of the work of the informal working group on clarification of 9.3.4.2 (construction requirements for the body of EX/III vehicles), which met in Bonn on 1 and 2 October 2018.

32. The Working Party welcomed the initial conclusions reached and noted that work should continue to determine provisions concerning the construction of the body of EX/III vehicles. The representative of the United Kingdom pointed out that this could be done in the light of the results of the discussions in the informal working group on the reduction of the risk of BLEVE of the Joint Meeting.

33. The Working Party regretted the lack of specialists to continue the work in the informal group in the immediate future.

2. **Use of electric and hybrid electric vehicles for the carriage of dangerous goods**

*Informal document: INF.10 (Netherlands)*

34. The Working Party agreed that the risks associated with the use of electric and hybrid electric vehicles for the carriage of dangerous goods should be assessed and that measures to limit these risks should be proposed, where appropriate.
35. The Working Party considered that this item should be discussed jointly with the World Forum for Harmonization of Vehicle Regulations (WP.29) at a joint meeting of the working parties in November 2020. Subject to the agreement of WP.29 on this proposal, the officers of both working parties could decide, after the deadline for the submission of documents, on the date of the joint meeting, the time required and the topics to be discussed.

36. The Working Party invited delegations wishing to do so to propose, at the next session, points for consideration in order to prepare this work.

3. Implementation of the requirements of 9.2.2.2.1 on cables

*Informal document: INF.15 (France)*

37. The representative of France recalled that she had already drawn the Working Party’s attention, at its 105th session (6–9 November 2018), to the difficulty of obtaining cables conforming to the ISO standards introduced in the 2017 edition (see ECE/TRANS/WP.15/244, para. 30).

38. The Working Party noted that this problem could still arise for category N1 and N2 vehicles subsequently converted for ADR purposes, because these vehicles were not fitted with standard cables and rewiring them would be costly and could lead to safety problems.

39. The Working Party invited representatives of the countries concerned to approach vehicle manufacturers to address this issue.

B. Miscellaneous proposals

1. Additional requirements concerning the supervision of vehicles in S1 (6), S16 and S21

*Document: ECE/TRANS/WP.15/2019/16 (Sweden)*

*Informal document: INF.18 (Switzerland)*

40. The proposals from Sweden sought to add a reference to the provisions in section 1.10.3 in relevant parts of provisions S1 (6), S16, and S21 of Chapter 8.5 so that the additional supervision requirements apply for substances and articles subject to the provisions in section 1.10.3 and in accordance with the security plan in 1.10.3.2. The alternative proposal of Switzerland was to specify that, for goods that are not subject to 1.10.3, the current requirement on additional supervision in these special provisions should remain.

41. The Working Party adopted by vote the proposals with some drafting changes (see annex I).

42. The Working Party noted that, for other goods subject to those additional requirements, the general supervision rules of Chapter 8.4 remained applicable.

2. ADR driver training certificate

*Document: ECE/TRANS/WP.15/2019/18 (CEFIC)*

*Informal documents: INF.24 (CEFIC), INF.28/Rev.1 (Secretariat)*

43. The Working Party adopted the proposal contained in paragraph 12 of informal document INF.24, as amended in informal document INF.28/Rev.1, with some drafting changes (see annex I).

44. The proposal in paragraph 13 to create an international database of ADR driver training certificates raised several issues, including the accessibility of such a database, the protection of personal data and the necessary funding for creating and updating it. The Working Party noted with interest that such databases were being set up at the national level in some countries and that it might be interesting to invite the working group on telematics of the Joint Meeting to consider the establishment of a common interface to facilitate the exchange of data between the competent authorities.

3. Editorial amendment proposals

Informal document: INF.20/Rev.1 (Secretariat)


47. The representative of OTIF confirmed that the amendment of 4.1.1.10 in the French version of ADR would also be proposed to the RID Committee of Experts. The secretariat would inform the Sub-Committee of Experts on the Transport of Dangerous Goods of that amendment.

4. Update of transitional measures

Informal document: INF.21 (Secretariat)

48. The Working Party adopted the proposals for updating transitional measures (see annex I).

5. Documents relating to dangerous goods no longer in the transport unit

Document: ECE/TRANS/WP.15/2019/22 (Switzerland)

49. Most delegations agreed that drivers should only present documents relevant to the current transport in the event of a check and that documentation relating to unloaded goods should ideally be excluded. However, most delegations did not support the solution proposed by Switzerland.

50. It was pointed out that the problem was rather a problem of implementation of ADR and of driver training. Several delegations also indicated that the proposal of Switzerland did not take into account all possible cases, such as that of uncleaned empty tanks for which information should be kept.

51. The representative of Switzerland indicated that he could present a revised proposal in the future and invited delegations wishing to do so to submit their comments to him.

6. Cross-sectional shapes of shells in accordance with 6.8.2.1.18

Informal document: INF.8 (United Kingdom)

52. The representatives of the United Kingdom and ECFD recalled that work was still under way in Technical Committee CEN/TC 296 to revise standard EN 13094. They presented the revised guidelines for the application of footnote 3 of 6.8.2.1.18 as a follow-up to the discussions on this item at the Joint Meeting at its autumn 2019 session.

53. The Working Party approved these guidelines and their publication on the ECE website if the revised version of the standard could not be published in time to be referenced in ADR 2021 (see annex II).

54. Consequently, the Working Party confirmed the adoption of the amendment to footnote 3 to 6.8.2.1.18 and adopted an additional amendment to introduce a reference to the guidelines in ADR (see annex I).

7. Tunnel restrictions for containers loaded with dangerous goods in limited quantities

Documents: ECE/TRANS/WP.15/2019/15 (Switzerland), ECE/TRANS/WP.15/2019/17 (Switzerland)

Informal document: INF.6 (Switzerland)

55. The Working Party discussed the different options to clarify provisions concerning the passage of vehicles carrying containers loaded with dangerous goods in limited quantities through tunnels.

56. The Working Party agreed that the case of containers bearing placards according to 5.3.1 and loaded with dangerous goods in limited quantities posed implementation problems with regard to tunnel restrictions.
57. There was no consensus on the different options for resolving this problem.

58. The Working Party invited the representative of Switzerland and the representative of Austria, who had proposed an alternative solution in session, to prepare a revised proposal or proposals for the next session.

8. Dangerous goods exempted from the tunnel restrictions

Document: ECE/TRANS/WP.15/2019/19 (Switzerland)

59. There were differences of opinion on how to deal with vehicles carrying:

(a) Goods subject to restrictions in tunnels in quantities not exceeding the limits of 1.1.3.6;

(b) Goods for which “(-)” is indicated in column (15) of Table A of ADR in quantities that make the load exceed the limits of 1.1.3.6.

60. Like Switzerland, most delegations thought that transport under 1.1.3.6 was exempt from tunnel restrictions, whereas the above example was not exempt even though goods with “(-)” would not be taken into account in terms of tunnel safety if transported on their own.

61. Most delegations did not support the proposal of Switzerland not to take into account goods with “(-)” when determining the calculated value according to 1.1.3.6 for tunnel restrictions.

62. The Working Party noted that the case presented by Switzerland concerned mainly environmentally hazardous substances of UN Nos. 3077 and 3082 and invited the representative of Switzerland to seek the opinion of the Joint Meeting on the relevance of transport category 3 for these substances according to the hazard they presented.

9. Proposal to amend special provision 363 (l) and 5.4.1.1.1 (k)

Document: ECE/TRANS/WP.15/2019/20 (Switzerland)

63. The Working Party adopted proposals 1 and 2 by the representative of Switzerland to clarify the scope of special provision 363 (l) and 5.4.1.1.1 (k) with amendments (see annex I).

VII. Interpretation of ADR (agenda item 6)

A. Miscellaneous equipment and equipment for personal protection

Informal document: INF.5 (Sweden)

64. Most delegations were of the opinion that it would be difficult to further clarify the provisions concerning the equipment to be carried on board vehicles to take into account the different applicable cases and that the choice of the most appropriate equipment according to the danger label number of the goods loaded was a matter of common sense and the responsibility of the transport company.

65. Most delegations considered that the general provisions for certain equipment could still be specified, such as the minimum capacity required for the collecting container. It was also noted that some equipment was also required on board by road safety or work safety regulations and that it might not be necessary to retain a mention of them in ADR.

66. The representative of Sweden said she could submit a revised proposal at a later date.

B. Transport of waste batteries and used storage batteries, bulk transport according to AP8

Informal document: INF.12 (Finland)
67. As this was a multimodal problem, the Working Party invited the representative of Finland to submit the question of interpretation to the Joint Meeting in order, in particular, for the informal working group of the Joint Meeting on the transport of hazardous waste to give an opinion and to consider the need to amend provision AP8.

C. **Transport of vehicles as a load**

*Informal document: INF.9 (Austria)*

68. The representative of Germany confirmed that case 4 presented in informal document INF.9 (transport of damaged vehicles with a combustion engine whose valve between the engine and the fuel tank could no longer be closed) had not been taken into consideration when drafting special provisions 666 and 667.

69. The representative of Germany agreed with the interpretation of Austria regarding case 1: a damaged electric battery vehicle (conventional electric vehicle) with a damaged or defective battery, when this had a significant impact on battery safety and when removal of the battery was not possible, was not subject to any other provision of ADR.

70. With regard to case 3, the representative of Germany agreed with the interpretation of Austria: for electric battery vehicles that were not damaged or defective being transported as a load, only the battery was subject to the requirements of 2.2.9.1.7.

71. The Working Party invited Austria to submit its analysis and questions of interpretation to the Joint Meeting. The Joint Meeting could decide, on this basis, to amend the provisions of 1.1.3 in order to specify the provisions applicable or exempted for the various cases mentioned that were not already covered.

D. **Truck transport on a flatbed trailer**

*Informal document: INF.13 (Belgium)*

72. The representative of Belgium wished to know whether an empty, uncleaned tank vehicle not registered or fulfilling the requirements of ADR being transported on a flatbed trailer fell within the scope of ADR and could enjoy exemptions.

73. It was recalled that this question of interpretation was similar to the question of Austria at the ninety-eighth session of the Working Party (4–6 May 2015) (see ECE/TRANS/WP.15/228), which concerned the carriage of tank vehicles on low-bed vehicles and trailers. The Working Party had also discussed, at its eightieth session (8–12 May 2006), the case of carriage of tank vehicles for aircraft refuelling not meeting the requirements of ADR that could be transported empty and uncleaned (see ECE/TRANS/WP.15/188).

74. Opinions were divided on the case presented by the representative of Belgium. Some delegations believed that this type of transport did not fall within the scope of the current exemptions provided for in ADR and that all the provisions of ADR should apply. Other delegations believed that some exemptions under 1.1.3.1 or 1.1.3.2 could apply or that such carriage could be covered by the transitional measure in 1.6.1.46 as machinery or equipment.

75. The representative of Belgium pointed out that this problem could be temporarily resolved by means of a national derogation. The Working Party agreed that it might be necessary to amend ADR in the future to clarify its application to such cases.

E. **Second sentence of 7.5.2.3**

*Informal document: INF.14 (COSTHA)*

76. The Working Party noted that the second sentence of 7.5.2.3, introduced during the work of restructuring ADR, could pose implementation problems. As it involved an informal document that had been submitted late, the Working Party invited the representative of COSTHA to submit a working document on this item at the next session. The Working Party
also requested the secretariat to look in the documentation on the restructuring work of ADR for any information that might be relevant to the introduction of this second sentence in the 2001 edition of ADR.

F. Approval of systems for the separation of explosive substances or articles by the competent authority

*Informal document: INF.23 (Turkey)*

77. The representative of Turkey took note of the comments made and would submit a working document at the next session.

G. Requirements concerning the electrical equipment of vehicles according to 9.2.1.1

*Informal document: INF.16 (Germany)*

78. In reply to the question raised by Germany, several cases were discussed:

(a) Standard vehicle registered earlier than the date shown in the “Comments” column of the table in 9.2.1.1 and converted during the same period for the purposes of ADR and deemed to comply with ADR;

(b) Standard vehicle registered earlier than the date shown in the “Comments” column in 9.2.1.1 but converted to an ADR vehicle after new requirements have been introduced in ADR;

(c) Vehicles that did not meet the requirements to be approved as ADR vehicles at the time of registration.

79. Opinions differed and this subject would be discussed again at the next session.

VIII. Programme of work (agenda item 7)

A. 2021 amendments

80. The Working Party requested the secretariat to prepare a consolidated list of all the amendments which it had adopted for entry into force on 1 January 2021 so that they could be made the subject of an official proposal in accordance with the procedure set out in article 14 of ADR, which, following usual practice, the Chair would be responsible for transmitting to the depositary through her Government. The notification would have to be issued no later than 1 July 2020, with a reference to 1 January 2021 as the scheduled date of entry into force. That document would be circulated under the symbol ECE/TRANS/WP.15/249.

81. The Working Party also requested the secretariat to publish the consolidated text of ADR as it would be amended on 1 January 2021 sufficiently in advance to prepare for its effective implementation before the entry into force of the amendments in question.

B. 108th session

82. The agenda items for the next session (11–15 May 2020), would be:

- Adoption of the agenda;
- Eighty-second session of the Inland Transport Committee;
- Status of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) and related issues;
- Work of the RID/ADR/ADN Joint Meeting;
- Proposals for amendments to annexes A and B of ADR;
• Interpretation of ADR;
• Programme of work;
• Any other business;
• Adoption of the report.

IX. Any other business (agenda item 8)

A. Corrigendum to ADR 2019

Informal document: INF.19 (Secretariat)

83. The Working Party noted that the corrections contained in informal document INF.19 would be published as a corrigendum to the published version of ADR 2019 (ECE/TRANS/275).

B. References to the competent authorities

Document: ECE/TRANS/WP.15/2019/23 (Secretariat)

84. The Working Party considered the references to competent authorities in Parts 8 and 9 of ADR. The Working Party requested the secretariat to submit a new document, no later than the November 2020 session, taking into account the comments received. The secretariat would inform the Joint Meeting of the progress of the discussions on this item.

C. Transport of damaged batteries and vehicles or equipment with damaged batteries

Document: ECE/TRANS/WP.15/2019/21 (Switzerland)
Informal document: INF.11 (Switzerland), INF.30 (Switzerland)

85. The Working Party noted with interest the presentation of Switzerland on containers that could be used for the transport of damaged batteries and vehicles or equipment with damaged batteries that cannot be removed.

86. The Working Party considered it premature to discuss the proposed amendments to regulate this type of equipment in ADR. It was recalled that the requirements and exemptions for the transport of defective or damaged lithium batteries installed on vehicles powered by electric motors would be discussed in the Joint Meeting (see para. 71).

X. Election of officers for 2020 (agenda item 9)

87. On a proposal from the representative of Luxembourg, the Working Party elected Ms. A. Roumier (France) as Chair and Mr. A. Simoni (Italy) as Vice-Chair for 2020.

XI. Adoption of the report (agenda item 10)

88. The Working Party adopted the report on its 107th session and its annexes on the basis of a draft prepared by the secretariat.
Annex I

[Original: English and French]

Draft amendments to annexes A and B of ADR for entry into force on 1 January 2021

Chapter 1.1

1.1.3.6.5 Replace “1.1.3.1 (a), (b) and (d)” with “1.1.3.1 (a) and (d)”.
(Reference document: informal document INF.20/Rev.1, proposal 3)

Chapter 1.6

1.6.1.1 Replace “2019” with “2021” and “2018” with “2020”.
(Reference document: informal document INF.21)
1.6.1.30 Delete and add “(Deleted)”.
(Reference document: informal document INF.21)
1.6.1.36 Delete and add “(Deleted)”.
(Reference document: informal document INF.21)
1.6.1.47 Delete and add “(Deleted)”.
(Reference document: informal document INF.21)
1.6.5.21 Delete and add “(Deleted)”.
(Reference document: informal document INF.22)

Chapter 1.10

1.10.4 Replace “0456 and 0500” with “0456, 0500, 0512 and 0513”.
(Reference document: informal document INF.24, consequential amendment)

Chapter 2.2

2.2.8, Note The amendment applies only to the French text.
(Reference document: informal document INF.20/Rev.1, proposal 2)

Chapter 4.1

4.1, Note under the title The amendment applies only to the French text.
(Reference document: informal document INF.20/Rev.1, proposal 1)
4.1.1.10 The amendment applies only to the French text.
(Reference document: informal document INF.20/Rev.1, proposal 8)

Chapter 4.3

4.3.4.2.2 The amendment applies only to the French text.
(Reference document: informal document INF.20/Rev.1, proposal 5)
Chapter 5.2

5.2.2.1.12.1 The amendment applies only to the French text.
(Reference document: informal document INF.20/Rev.1, proposal 6)

Chapter 7.1

7.1.7.3.6 The amendment applies only to the French text.
(Reference document: informal document INF.20/Rev.1, proposal 7)

Chapter 7.5

7.5.11, CV4 The amendment applies only to the French text.
(Reference document: informal document INF.20/Rev.1, proposal 4)

Chapter 8.2

8.2.2.8.6 Replace to read as follows:
“8.2.2.8.6 Contracting Parties shall provide the ECE secretariat with an example of the national model for any certificate intended for issue in accordance with this section. Contracting Parties shall also provide explanatory notes to enable the verification of conformity of certificates with the examples provided. The secretariat shall make this information available on its website.”
(Reference document: informal document INF.28/Rev.1, as amended)

Chapter 8.5

8.5, S1 (6) In the second paragraph under the list, replace “substances and articles shall be supervised at all times in order to prevent” with “substances and articles, when subject to the provisions in 1.10.3, shall be supervised in accordance with the security plan in 1.10.3.2 at all times to prevent”.
(Reference document: ECE/TRANS/WP.15/2019/16, as amended)

8.5, S16 Replace the second paragraph with “In addition, vehicles carrying more than 500 kg of these substances shall, when subject to the provisions in 1.10.3, be supervised in accordance with the security plan in 1.10.3.2 at all times to prevent any malicious act and to alert the driver and competent authorities in the event of loss or fire.”
(Reference document: ECE/TRANS/WP.15/2019/16)

8.5, S21 Delete the second sentence. After the subparagraphs, add a new paragraph to read: “In addition, these goods shall, when subject to the provisions in 1.10.3, be supervised in accordance with the security plan in 1.10.3.2 at all times to prevent any malicious act and to alert the driver and the competent authorities in the event of loss or fire.”
(Reference document: ECE/TRANS/WP.15/2019/16)

Amendments according to ECE/TRANS/WP.15/244, ECE/TRANS/WP.15/246, ECE/TRANS/WP.15/AC.1/156, annex II and ECE/TRANS/WP.15/AC.1/2019/22/Add.1, as consolidated in informal document INF.7, adopted with the following modifications:

Chapter 1.6

1.6.6.1 The modification does not apply to English.
Chapter 2.2
2.2.7.2.3.1.3  The modification does not apply to English.

Chapter 3.3
SP 301  In the second sentence, delete “and in the last sentence”.
SP 327  The modification does not apply to English.
SP 363 (l)  Replace “The transport unit” with “For carriage that includes passage through restricted tunnels, the transport unit”. Delete the last sentence.
(Reference document: ECE/TRANS/WP.15/2019/20, as amended)

Chapter 4.1
4.1.4.1, P003  In the first amendment, replace “P801 (2)” with “P801”.
(Reference document: informal document INF.27)
4.1.8.6  Delete the amendment.

Chapter 5.4
5.4.1.1.1 (k)  Replace the amendment to read as follows:
“5.4.1.1.1 (k) Replace the existing paragraph with ‘for carriage that includes passage through tunnels with restrictions for carriage of dangerous goods, the tunnel restriction code given in Column (15) of Table A of Chapter 3.2, in capitals within parenthesis, or the mention ‘(─)’.’”
(Reference document: ECE/TRANS/WP.15/2019/20, as amended)

Chapter 5.5
5.5.3.6.1 (a)  The modification does not apply to English.
5.5.3.6.1 (b)  The modification does not apply to English.

Chapter 6.2
Remove the square brackets (three instances).

Chapter 6.7
6.7.2.19.6  Replace “Inspection and filling of portable tanks” with “Inspection and test of portable tanks and filling”.
6.7.3.15.6  Replace “Inspection and filling of portable tanks” with “Inspection and test of portable tanks and filling”.
6.7.4.14.6  Replace “Inspection and filling of portable tanks” with “Inspection and test of portable tanks and filling”.

Chapter 6.8
6.8.2.1.18  Remove the square brackets. Add the following sentence at the end of the new text: “See the guideline for the application of footnote 3 of ADR 6.8.2.1.18 on the website of the ECE secretariat (http://www.unece.org/trans/danger/danger.html).”.
(Reference document: informal document INF.8, consequential amendment)
Annex II

Guideline for the application of footnote 3 of ADR 6.8.2.1.18

In order to provide safe construction for the safe use of tanks in accordance with footnote 3 of ADR 6.8.2.1.18 in respect of the cross-sectional shapes of shells according to ADR 6.8.2.1.14 (a), the requirements in clause 6.1 of the forthcoming standard EN 13094:2020 to be referenced in ADR 6.8.2.6.1 are reproduced below for the purpose of the design and construction of tanks according to ADR 6.8.2.1.14 (a):

1. Shell cross section

1.1 General

A shell may have a circular, elliptical or other cross-section shape (including box-shaped) or combinations thereof.

Where a combination of shapes is used for a cross section, the required minimum thickness for the whole cross section at that point according to annex 1 shall be the greatest minimum thickness required for the shapes used.

1.2 Requirements for shells of non-circular cross section

(a) The radius of convexity of the shell wall shall not exceed 2 m at the sides and 3 m radius at the top and the bottom;

(b) There shall be a minimum radius of 200 mm linking the top/bottom and side convexities.

NOTE: The equivalent diameter for a non-circular section shall be calculated using the formula \[ D = 2 \sqrt{\frac{St}{\pi}} \] where \( St \) = the internal cross-sectional area of the shell.

1.3 Sumps and other projections outside the shell

1.3.1 Projections outside the basic cross-section of a shell shall be kept to a minimum and protection shall be provided from all directions on the shell unless it is provided by vehicle components (e.g. chassis members, suspension components, axles, etc.). The cross-sectional area of each projection shall not exceed 10% of the cross-sectional area of the shell at that point without the projection. When the projection is not protected, the thickness shall not be less than the thickness specified for the shell given in annex 1. When the projection is protected, the thickness shall be the same thickness as the shell.

1.3.2 Shells and their compartments may be provided with sumps and/or internal channelling in order to:

- Assist the complete discharge of the substance carried;
- Facilitate the removal of entrained water from the substance carried; or
- Locate a foot valve away from an area where there exists a risk of damage, for example near the coupling section on a semi-trailer.

Sumps shall not protrude more than 150 mm from the contour of the shell.

Internal channelling and sumps shall be manufactured from the same material as the shell to which they are fitted; flat material may be used. Their minimum thickness shall be at least equal to that of the shell.

A sump may consist of a vertical cylindrical section combined with internal or external channelling sections to lower the mounting flange of the foot valve.
1.4 Cut-out sections within the contour of a side or bottom of the shell

1.4.1 Side cut-outs to accommodate service equipment

Side cut-outs to provide space for service equipment such as flow meters shall be designed in accordance with the following criteria:

- The total cross-sectional area of cut-outs at any point shall not exceed 20 % of the total cross-sectional area of the shell without cut-outs where the cut-outs are located;
- The length of the cut-out shall not exceed 40% of the length of the shell and in any case not exceed 1 400 mm;
- The minimum distance from the sides of the cut-outs to the ends shall be at least 200 mm;
- The height and depth of the cut-out shall be such that it does not encroach within 50 mm of the centre lines of the shell;
- The thickness shall not be less than the thickness specified in annex 1;
- The welds shall be fully penetrated (or made of lap joints);
- The cut-out shall not extend beyond one compartment or a section of shell.

See figures in annex 2 for examples of side cut outs.

1.4.2 Cut-outs to accommodate tank mountings or other structural equipment

Cut-outs to accommodate structural equipment (e.g. couplings for trailers or semi-trailers), shall be designed in accordance with the following criteria:

- The cross-sectional area of the cut-out shall not exceed 30% of the total cross-sectional area of the shell without cut-out, where it is located;
- The length of the cut-out shall not exceed 35% of the length of the tank;
- Service equipment shall not be welded directly to a concave surface within the cut-out;
- The weld shall be fully penetrated;
- The minimum thickness shall not be less than the thickness specified in annex 1;
- The joint of the end of the structural plate to the shell shall be to a partition or surge plate whose design complies with that for an end;
- The design shall not compromise complete drainage of the product to be carried.

See figure in annex 3 for an example of a bottom cut out.
Annex 1

Clause 6.8.1 from the forthcoming standard EN 13094:2020

Minimum shell thickness

The thickness of shells made of mild steel (with a guaranteed minimum tensile strength of 360 N/mm² to 490 N/mm²) shall be not less than the following values, unless the conditions specified in the clause in EN 13094 that concerns the “reduction of shell thickness” are met:

- 5 mm if the shell diameter is not more than 1.8 m;
- 6 mm if the shell diameter is greater than 1.8 m (except in the case of shells intended for the carriage of powdery or granulated substances).

For non-circular shells, an equivalent diameter shall be calculated on the basis of the cross-sectional area. For shells with sections having different cross-sectional areas, equivalent diameters shall be calculated for each section.

For tapered shells, the largest diameter or largest equivalent diameter of the section shall be used to calculate the minimum thickness of the shell section.

If the shell is made of another material, the equivalent minimum thickness shall be determined in accordance with Formula (3):

$$e_t = \frac{464e_0}{\sqrt{R_{nt\cdot A_t}}}$$

If the shell thickness is increased to allow for corrosive substances, this additional thickness shall not be taken into consideration in calculating the minimum shell thickness.

The actual minimum thickness shall not be below the absolute minimum shown in the table in ADR 6.8.2.1.19.
Annex 2

Examples of side cut outs

![Diagram of side cut outs](image-url)
Annex 3

Examples of a bottom cut out

(Reference document: informal document INF.8, consequential amendment)