

**OTIF**



**ORGANISATION INTERGOUVERNEMENTALE POUR  
LES TRANSPORTS INTERNATIONAUX FERROVIAIRES**

**ZWISCHENSTAATLICHE ORGANISATION FÜR DEN  
INTERNATIONALEN EISENBAHNVERKEHR**

**INTERGOVERNMENTAL ORGANISATION FOR INTER-  
NATIONAL CARRIAGE BY RAIL**

**INF. 7**

13 May 2014

(Original: English/French)

**RID: 3<sup>rd</sup> Session of the RID Committee of Experts' standing working group  
(Berne, 20 and 21 May 2014)**

**Subject: Texts adopted by the 96<sup>th</sup> session of WP.15 (Geneva, 6 – 9 May 2014)**

**Note by the Secretariat**

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**Extracts from the draft report of the 96<sup>th</sup> session of WP.15 (Geneva, 6 – 9 May 2014)**

**I. Attendance**

1. The Working Party on the Transport of Dangerous Goods held its ninety-sixth session from 6 to 9 May 2014 with Mr. J.A. Franco (Portugal) as Chairperson and Ms. A. Roumier (France) as Vice-Chairperson.
2. Representatives from the following countries took part in the session: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovakia, Sweden, Switzerland and United Kingdom.
- (...)
4. The European Union was represented.
5. The following intergovernmental organization was represented: Intergovernmental Organisation for International Carriage by Rail (OTIF).

For reasons of cost, only a limited number of copies of this document have been made. Delegates are asked to bring their own copies of documents to meetings. OTIF only has a small number of copies available.

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6. The following non-governmental organizations were represented: European Liquefied Petroleum Gas Association (AEGPL), European Conference of Fuel Distributors (ECFD), International Dangerous Goods and Containers Association (IDGCA), International Organization of Motor Vehicle Manufacturers (OICA), International Road Transport Union (IRU).

(...)

## VI. Work of the RID/ADR/ADN Joint Meeting (agenda item 5)

### A. Amendments proposed by the Joint Meeting at its spring 2014 session

*Document:* ECE/TRANS/WP.15/AC.1/134 and Adds 1-2

*Informal documents:* INF.5/Rev.1 and -/Corr.1 (Secretariat)  
[Note by the OTIF secretariat: The content of these two informal documents has already been taken into account in document [OTIF/RID/NOT/2015].]  
INF.28 (France)  
[Note by the OTIF secretariat: This informal document is attached to this report as Annex V.]

11. The Working Party considered the amendments in Sections I and II of INF.5/Rev.1. The amendments were adopted for entry into force on 1 January 2015, subject to a few modifications (see annex I). The Working Party noted that these modifications would also be brought to the attention of the RID Committee of Experts at its next session.

(...)

13. In relation to the amendments to paragraph 4.5.2.6, the expert from Germany mentioned that a Multilateral Agreement was under development and would be circulated for signature among Contracting Parties soon.

14. The Working Party noted that certain references to standards had been left in square brackets in informal document INF.5/Rev.1 because they were to be published in May or June 2014. The Working Party agreed to include these references as adopted texts (i.e. without square brackets) in ECE/TRANS/WP.15/222/Add.1. If the standards had not been published by 15 June 2014, the secretariat was requested to issue a corrigendum to ECE/TRANS/WP.15/222/Add.1 deleting these references.

15. The amendment to the reference to EN 1626:2008 in 6.2.4.1 and 6.8.2.6.1 as proposed in INF.28 was adopted (see annex I).

(...)

32. During the discussion of INF.5/Rev.1 several delegations raised concerns about the use of references in ADR texts to regulations that did not apply to all ADR Contracting Parties, such as European Union Directives. Even when such references were intended to clarify the scope of ADR, the lack of an official translation posed a problem for competent authorities.

33. The revised text of 1.1.3.3 (c) in informal document INF.34 [attached to this report as Annex X] presented by the representative of the European Union that made reference to the definition of non-road mobile machinery in the Consolidated Resolution on the Construction of Vehicles (R.E.3) as well as in Article 2 of Directive 97/68/EC was adopted (see annex I).

(...)

## B. Specific issues

(...)

### 2. Correction to 5.2.2.1.11.1

*Informal document:* INF.16 (Sweden)

[Note by the OTIF secretariat: This informal document is attached to this report as Annex III.]

19. The correction to the amendment for 5.2.2.1.11.1 in ECE/TRANS/WP.15/222 (OTIF/RID/CE/GTP/2013/17) was adopted (see annex I).

### 3. Flexible bulk containers (FBC)

*Informal documents:* INF.33 and -/Add.1 (IDGCA)

[Note by the OTIF secretariat: This informal document is attached to this report as Annex IX. Addendum 1 can be downloaded from the UNECE Website

(<http://www.unece.org/trans/main/dgdb/wp15/wp15inf96.html>).]

INF.24 (Germany)

20. The Working Party welcomed the information from IDGCA on the results of the tests performed on flexible bulk containers (FBC). The representative of IDGCA addressed questions concerning the reasons behind the different stacking test results for FBCs subject to the same test, the testing conditions and the characteristics of the FBCs tested. However, several experts pointed out that due to the late release of the documents which had only been made available during the session, they had not had the time to either study them in detail or to consult other national experts and therefore they were not in a position to decide on allowing the use of flexible bulk containers as from 1 January 2015 at this point.

(...)

41. It was questioned whether the Working Party should adopt amendments to Part 6 and postpone adoption of those for Part 7. Several representatives were of the opinion that the amendments should be adopted as a package, because it made little sense to have testing provisions if transport was not allowed.
42. The proposal in informal document INF.24 to require vehicles used for carriage of flexible bulk containers to be equipped with an electronic stability control system approved in accordance with ECE Regulation No. 13 was in general favourably received. The representative of Switzerland, however, indicated that the presence of such systems did not constitute an exemption from the obligation to ensure the stability of vehicles carrying dangerous goods.
43. Put to a vote, the Working Party decided by a majority to postpone the decision on the amendments related to flexible bulk containers until the next session to give delegations more time to consider the test data supplied by IDGCA. It was stressed that all the proposed amendments, additional requirements for vehicles and additional test results if available should be submitted in time to be issued as official documents.

(...)

## 5. Exemption of electric energy storage systems for vehicles and their equipment

*Document:* ECE/TRANS/WP.15/AC.1/2014/27 (Switzerland)

*Informal document:* INF.7 (Switzerland)  
[Note by the OTIF secretariat: This informal document has been submitted to the standing working group as document OTIF/RID/CE/GTP/2014/12.]

37. This issue had been submitted to the spring session of the Joint RID/ADR/ADN meeting but had not been dealt with because of a lack of time. The proposal in informal document INF.7 was to extend the exemption in 1.1.3.7, currently only applicable to lithium batteries, to other electric energy storage and production systems. A few countries had reservations about the proposal and felt that it would be more appropriate to conclude the discussions in the Joint Meeting since all modes of transport were concerned. The Working Party noted that these modifications would also be brought to the attention of the RID Committee of Experts' standing working group at its next session. When put to the vote, the proposal with a number of modifications was adopted by a majority (see annex I). It was also agreed to bring this decision to the attention of the ADN Safety Committee.

## 7. Smoking prohibition

*Informal document:* INF.13 (Luxembourg)  
[Note by the OTIF secretariat: This informal document is attached to this report as Annex II.]

38. The proposal was to extend the prohibition on smoking to the use of electronic cigarettes which also posed a risk of ignition during the handling of dangerous goods. A few countries felt that the existing prohibition of smoking already covered electronic cigarettes or that the issue could be resolved by a statement in the report of the session but the majority agreed that there was a need to mention electronic cigarettes and other similar devices explicitly because of the possibility that users did not consider themselves as smokers. The proposed amendments to 7.5.9, 8.3.5, 8.5 and 5.4.3.4 were adopted by majority vote with a number of changes (see annex I).

## 8. Draft corrections to be included in the Addendum to the consolidated list of amendments

*Informal document:* INF.17 (Secretariat)  
[Note by the OTIF secretariat: The content of this informal document has already been taken into account in document [OTIF/RID/NOT/2015].]

39. The Working Party adopted the corrections proposed by the secretariat which should be added to the list of amendments for entry into force on 1 January 2015. It was pointed out that the amendment in the English text to MP 20 in 4.1.10 also applied to MP 18 and MP 23 and that in the French text the amendment to 7.3.2.6.1 (b) also applied to 7.3.2.6.1 (a) and (e) (see annex I).

(...)

## 11. Corrections to the amendments to ADR for entry into force on 1 January 2015

*Informal document:* INF.23 (Secretariat)  
 [Note by the OTIF secretariat: The content of this informal document has already been taken into account in document [OTIF/RID/NOT/2015].]

48. The Working Party adopted the correction proposed by the secretariat to the amendment to 6.5.2.2.2 in document ECE/TRANS/WP.15/222. It would be added to the list of amendments for entry into force on 1 January 2015.

## 12. Exemption for the liquids used to reduce exhaust gases dangerous for the environment

*Informal document:* INF.30 (Switzerland)  
 [Note by the OTIF secretariat: This informal document is attached to this report as Annex VI.]

49. The Working Party recognised the problem raised in the document and asked for more information on the substances concerned. The representative of Switzerland was invited to submit an official document on the subject to the next session of the Joint RID/ADR/ADN Meeting since the other modes of transport might also be concerned.

## 13. Updating of a standard

*Informal document:* INF.31 (EIGA)  
 [Note by the OTIF secretariat: This informal document is attached to this report as Annex VII.]

50. The proposal to add a reference to the new standard ISO 7866:2012 for aluminium gas cylinders which had already been accepted for the UN Recommendations on the Transport of Dangerous Goods was also accepted for the 2015 version of ADR (see annex I).

## VII. Proposals for amendments to annexes A and B of ADR (agenda item 6) (*cont'd*)

### A. Construction and approval of vehicles

#### 1. Use of liquefied natural gas as fuel for vehicles carrying dangerous goods

*Document:* ECE/TRANS/WP.15/2014/2 (Netherlands)

*Informal documents:* INF.11 (Germany), INF.22 (Romania), INF.25 (Netherlands), INF.26 (AEGPL) and INF.32 (Belgium)  
 [Note by the OTIF secretariat: Informal document INF.32 is attached to this report as Annex VIII.]

(...)

31. As concerns informal document INF.32, it was agreed to include LNG in the scope of Special Provision 660 in the amendments for ADR 2015 (see annex I). (...)

(...)

**B. Miscellaneous proposals**

**9. Editorial differences**

*Informal document:* INF.18 (Italy)

[Note by the OTIF secretariat: This informal document is attached to this report as Annex IV.]

46. The representative of Italy was invited to submit an official proposal to the next session of the Joint RID/ADR/ADN Meeting stating what changes were required.

(...)

**14. Corrections to the table of precedence of hazards**

*Informal document:* INF.36 (Ireland)

[Note by the OTIF secretariat: This informal document is attached to the present report as Annex XI.]

60. The proposal was not adopted. The Working Party confirmed that the table of precedence of hazards in ADR 2013 was correct. It was also noted that changes to texts coming from the UN Model Regulations had to be first discussed and adopted by the UN Sub-Committee of Experts on the Transport of Dangerous Goods.

(...)

### Texts adopted by WP.15

The 96<sup>th</sup> session of WP.15 (Geneva, 6 – 9 May 2014) adopted amendments that have repercussions for RID and which are therefore reproduced below. Amendments concerning ADR only or which are already taken into account in document [OTIF/RID/NOT/2015] are not reproduced. The amendments are already worded as they would have to be if adopted for RID.

#### **A. Corrections to document ECE/TRANS/WP.15/222 and new amendments adopted in accordance with informal documents INF.5/Rev.1 and INF.5/Rev.1/Corr.1 with the following modifications**

##### **Chapter 1.1**

**1.1.3.3 (c)** In the first sentence, move reference to footnote 1 to after "machinery".

In the first sentence, delete:

"as defined in Article 2 of Directive 97/68/EC".

Amend the beginning of footnote 1 to read as follows:

"For the definition of non- road mobile machinery see Article 2.7 of the Consolidated Resolution on the Construction of Vehicles (R.E.3) or Article 2 of ...".

[Reference document: informal document INF.34]

##### **Chapter 1.2**

**1.2.1** Delete the amendments to add the new definition of "**Flexible bulk container**" and the definitions of "**Closed bulk container**" and "**Sheeted bulk container**" contained in 6.11.1 (twice).

##### **Chapter 1.8**

**1.8.3.9** The amendment should read as follows:

"**1.8.3.9** Replace "laws, regulations and administrative provisions applicable to the modes of transport concerned" by:

"applicable laws, regulations and administrative provisions".

##### **Chapter 3.2**

###### **Table A**

Delete the instructions to amend column (10) for UN numbers 1334, 1350, 1454, 1474, 1486, 1498, 1499, 1942, 2067, 2213, 3077, 3377 and 3378, PG III.

##### **Chapter 6.2**

Delete all the square brackets in the amendments for this chapter.

## INF.7

**6.2.4.1** In the amendment for standard EN ISO 10297:2006, delete:  
"2018".

In the new entry for EN 1626:2008, amend the first column to read:

"EN 1626:2008 (except valve category B)".

[Reference document: informal document INF.28]

## Part 6

Delete the instructions to amend 6.1.3.1 (a) (i), 6.2.2.7.2 (a), 6.2.2.9.2 (a), 6.3.4.2 (a), 6.5.2.1.1 (a), 6.6.3.1 (a), 6.7.2.20.1 (c) (i), 6.7.3.16.1 (c) (i), 6.7.4.15.1 (c) (i) and 6.7.5.13.1 (c) (i).

### Chapter 6.11

Delete the instructions to amend 6.11.1, 6.11.2.3 and 6.11.5.

### Chapter 7.3

**7.3.2.1** Delete both the amendment instructions in square brackets.

**7.3.2.10** Delete the amendment instruction.

**7.5.7.4,  
7.5.7.5 and  
7.5.7.6**

Delete the amendment instruction.

## B. Additional changes to document ECE/TRANS/WP.15/222

### Table of Contents

**1.1.3.7** Amend to read as follows:

**"1.1.3.7 Exemptions related to the carriage of electric energy storage and production systems".**

### Chapter 1.1

**1.1.3.7** Amend the beginning of the paragraph, before subparagraph (a), to read as follows:

**"1.1.3.7 Exemptions related to the carriage of electric energy storage and production systems**

The provisions laid down in RID do not apply to electric energy storage and production systems (e.g. lithium batteries, electric capacitors, asymmetric capacitors, metal hydride storage systems and fuel cells):".

In paragraphs (a) and (b), delete:

"Lithium batteries".



[Reference documents: informal document INF.7 and ECE/TRANS/WP.15/AC.1/2014/27 or OTIF/RID/CE/GTP/2014/12, as appropriate]

**1.8.3.13** Delete the last paragraph.

[Reference document: informal document INF.35]

## **Chapter 3.2**

### **Table A**

For UN 1972, in column (6), insert:

"660".

[Reference document: informal document INF.32]

## **Chapter 3.3**

**SP 660** Amend the footnote 6 to read as follows:

<sup>6</sup> ECE Regulation No. 110 (Uniform provisions concerning the approval of:  
I. Specific components of motor vehicles using compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion system;  
II. Vehicles with regard to the installation of specific components of an approved type for the use of compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion system.)".

## **Chapter 4.1**

### **4.1.4.1**

**P200** In paragraph (10), special packing provision "u", replace "ISO 7866:1999" with:  
"ISO 7866:2012".

[Reference document: informal document INF.31]

### **4.1.10.4**

**MP 18** In the first indent, delete: "or articles".

**MP 23** In the second sentence, delete: "and articles".

## **Chapter 5.2**

**5.2.2.1.11.1** Delete the third sentence which reads: "Each overpack containing radioactive material shall bear at least two labels on opposite sides of the outside of the overpack.".

[Reference document: informal document INF.16]

## **Chapter 5.4**

**5.4.3.4** In the model of the instructions in writing, amend the third indent on page 1 to read as follows:

"– Avoid sources of ignition, in particular, do not smoke, use electronic cigarettes or similar devices or switch on any electrical equipment;".

[Reference document: informal document INF.13]

## Chapter 6.2

6.2.2.1.1 For ISO Standard "ISO 7866:1999", in the third column, add:

"Until 31 December 2020".

After ISO Standard "ISO 7866:1999" add the following new standard:

"

ISO 7866:2012	Gas cylinders – Refillable seamless aluminium alloy gas cylinders – Design, construction and testing <b>NOTE:</b> Aluminium alloy 6351A or equivalent shall not be used.	Until further notice
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"

[Reference document: informal document INF.31]

## Chapter 7.3

7.3.2.6.1 [The amendment to paragraph (a) in the French version does not apply to the English text.]

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Informal document INF.13 of the 96<sup>th</sup> session of WP.15

**Economic Commission for Europe**

**Inland Transport Committee**

**Working Party on the Transport of Dangerous Goods**

**Ninety-sixth session**

**9 April 2014**

Geneva, 6–9 May 2014

Item 6 (b) of the provisional agenda

**Proposals for amendments to Annexes A and B of ADR:  
miscellaneous proposals**

**Smoking prohibition**

**Transmitted by the Government of Luxembourg**

*Summary*

- Executive summary:** The aim of this proposal is to clarify how the usage of electronic cigarettes can be regulated in the ADR and if the prohibition of smoking might also be applicable for electronic cigarettes.
- Decision to be taken:** Amend the requirements of the prohibition of smoking in the ADR by the extension to the usage of electronic cigarettes.  
Finally it is important to mention that the term “electronic cigarette” applies also to all technical devices that can be used for smoking.

**Introduction**

1. In the ADR the prohibition of smoking during the handling operations with dangerous goods is mentioned several times.
2. In ADR 7.5.9 and 8.3.5 smoking is prohibited during handling operations in the vicinity of vehicles or containers or inside the vehicles or containers.  
In 8.5 S1 (3) smoking shall be prohibited on vehicles carrying substances and articles of class 1, in their vicinity and during the loading and unloading of these substances and articles.  
Furthermore a prohibition of smoking is laid down in the instructions in writing in 5.4.3.4 in an event of an accident or emergency.
3. Other than a common cigarette an electronic cigarette is considered as a technical device which consist 3 components: the atomizer- a battery-driven resistance wire t responsible for vaporizing liquid; a tank containing the liquid, and the battery. All components are part of the enclosure of the cigarette.
4. As the risk of ignition cannot be excluded, it is appropriate to extend the regulation of the smoking prohibition in the ADR to the usage of electronic cigarettes.
5. As the inspection authorities already had to face this problem it is considered justified to raise this issue in WP.15

## Proposition

6. The prohibition of smoking in 7.5.9, 8.3.5, 8.5. S1 (3) and in the instructions in writing in 5.4.3.4 lit.2 should be modified as follows:

“7.5.9 Prohibitions of smoking

Smoking shall be prohibited during handling operations in the vicinity of vehicles or containers and inside the vehicles or containers.” This prohibition is also applicable for the use of electronic cigarettes<sup>1</sup>.

“8.3.5 Prohibitions of smoking

Smoking shall be prohibited during handling operations in the vicinity of vehicles and inside the vehicles.” This prohibition is also applicable for the use of electronic cigarettes<sup>1</sup>.

“8.5 S1 (3) Prohibitions of smoking, fire and naked flame

Smoking, the use of fire or of naked flames shall be prohibited on vehicles carrying substances and articles of Class 1, in their vicinity and during the loading and unloading of these substances and articles.” This prohibition is also applicable for the use of electronic cigarettes<sup>1</sup>.

“5.4.3.4 INSTRUCTIONS IN WRITING ACCORDING TO ADR

Avoid sources of ignition, in particular, do not smoke or switch on any electrical equipment. This prohibition of smoking is also applicable for the use of electronic cigarettes<sup>1</sup>.

<sup>1</sup> “electronic cigarette” applies also to all technical devices that can be used for smoking.

## Justification

7. The proposed amendment clarifies that in future a consistent treatment of the use of electronic cigarettes - regarding the prohibition of smoking- in the ADR is clarified

Safety: This proposal contributes to ensuring the safety and avoids any risk of ignition which could eventually occur by using an electronic cigarette.

Actual application: This proposal offers greater legal certainty and clarity for the supervisory bodies and end users of ADR.

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**Informal document INF.16 of the 96<sup>th</sup> session of WP.15**

**Economic Commission for Europe**

Inland Transport Committee

**Working Party on the Transport of Dangerous Goods**

Ninety-sixth session

17 April 2014

Geneva, 6–9 May 2014

Item 5 of the provisional agenda

**Work of the RID/ADR/ADN Joint Meeting**

**Editorial correction proposed to 5.2.2.1.11.1 in Part 5**

**Transmitted by the Government of Sweden**

*Summary*

<b>Executive summary:</b>	Editorial correction proposed to 5.2.2.1.11.1 for inclusion in ADR 2015
<b>Action to be taken:</b>	Delete the third sentence in 5.2.2.1.11.1 for ADR 2015
<b>Reference documents:</b>	ECE/TRANS/WP.15/222

1. In the report **ECE/TRANS/WP.15/222** the following amendments are included for 5.2.2.1.11.1:

*“5.2.2.1.11.1 Amend the first and second sentences to read as follows:*

*“Except when enlarged labels are used in accordance with 5.3.1.1.3, each package, overpack and container containing radioactive material shall bear the labels conforming to the applicable models Nos. 7A, 7B or 7C, according to the appropriate category. Labels shall be affixed to two opposite sides on the outside of the package or overpack or on the outside of all four sides of a container or tank.”.*

*5.2.2.1.11.1 In the fourth sentence, for “under 6.4.11.2” read “under the provisions of 2.2.7.2.3.5”, replace “which conform to model” by “conforming to model” and replace the last phrase of the fourth sentence by the following: “such labels, where applicable, shall be affixed adjacent to the labels conforming to the applicable model Nos. 7A, 7B or 7C.”.*

2. As a result of these amendments, provisions concerning labels on overpacks are now dealt with in the second sentence, which makes the third sentence superfluous. Sweden believes that the third sentence in 5.2.2.1.11.1 could be deleted as a consequence of the amended text for ADR 2015.

**Proposal**

3. Amend 5.2.2.1.11.1 to read as follows (the amendments from ECE/TRANS/WP.15/222 have been considered, and the proposed amendment is shown as strikethrough):

*“5.2.2.1.11.1 Except when enlarged labels are used in accordance with 5.3.1.1.3, each package, overpack and container containing radioactive material shall bear the labels conforming to the applicable models Nos.7A, 7B, and 7C, according to the appropriate category. Labels shall be affixed to two opposite sides on the outside of the package or*

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overpack or on the outside of all four sides of a container or tank. ~~Each overpack containing radioactive material shall bear at least two labels on opposite sides of the outside of the overpack.~~ In addition, each package, overpack and container containing fissile material, other than fissile material excepted under the provisions of 2.2.7.2.3.5 shall bear labels conforming to model No.7E; such labels, where applicable shall be affixed adjacent to the labels conforming to the applicable model Nos. 7A, 7B or 7C. Labels shall not cover the markings specified in 5.2.1. Any labels which do not relate to the contents shall be removed or covered.”

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Informal document INF.18 of the 96<sup>th</sup> session of WP.15**Economic Commission for Europe****Inland Transport Committee****Working Party on the Transport of Dangerous Goods****Ninety-sixth session****24 April 2014**

Geneva, 6–9 May 2014

Item 6 (b) of the provisional agenda

**Proposals for amendments to Annexes A and B of ADR:  
miscellaneous proposals****Editorial differences****Transmitted by the Government of Italy****Introduction**

Through an examination of the official editions of the ADR 2013 (French and English) it was found a set of editorial differences as shown in the attached table.

These differences submitted to the attention of the Working Party need to be assessed in view of the next edition.

The differences highlighted **in grey** have already been mentioned by the document INF 17 of the Secretariat.

Paragraph	French	English
1.1.3.5	... si des mesures appropriées ont été prises afin de compenser les <b>risques éventuels. Les risques</b> sont compensés si des <b>mesures</b> ont été prises pour éliminer les <b>dangers des classes 1 à 9.</b>	....if adequate Measures have been taken to nullify <b>any hazard. Hazards</b> are nullified if <b>adequate Measures</b> have been taken to nullify all <b>hazards of Classes 1 to 9.</b>
1.2.1 Tanks	....tels que définis dans la présente section	<b>In the definition of "Tank", replace "as defined in this Part" by:</b> <b>"as defined in this Section".</b>
1.2.1 Rigid plastic IBC	... qui peut comporter <b>une ossature</b> et être doté d'un équipement de service approprié;	... may have <b>structural equipment</b> together with appropriate service equipment;
1.2.1 Transport index (TI)	.... matière LSA-I ou d'un objet SCO-I	... LSA-I or SCO-I
1.2.1 Recycled plastics material	.... traités pour être soumis au recyclage	.... prepared for processing into new packagings
1.2.2.3	....la tension de vapeur est...	.... the vapour pressure <b>of substances</b> is...
1.3.1	La formation doit aussi traiter des s'appliquant à la sûreté du transport des marchandises dangereuses telles qu'elles sont énoncées dans le chapitre 1.10.	Training to security of dangerous goods in Chapter 1.10 shall also be addressed.
1.4.2.2.1 (f)	Remplacer "les étiquettes de danger" par: "les plaques-étiquettes".	<b>Replace "danger labels" by:</b> <b>"placards".</b>
1.6.1.26	....marque de la charge maximale autorisée...	...maximum permitted stacking load...

INF.7

Paragraph	French	English
1.6.4.37	Remplacer "s'ils sont conformes à toutes les autres dispositions pertinentes de l'édition actuelle de l'ADR" par: "s'ils sont conformes à toutes les autres dispositions pertinentes de l'ADR applicables à partir du 1 <sup>er</sup> janvier 2011".	... if they comply with all other relevant requirements of RID applicable as from 1 January 2011 ...
1.8.1.1	... peuvent à tout moment et sur place, sur leur territoire national, <u>contrôler...</u>	... may, on their national territory, at any time, conduct <u>spot checks</u> to verify....
1.8.3.9	... administratives, ainsi qu'une connaissance suffisante des tâches définies au 1.8.3.3.	... administrative provisions ( <b>Delete "applicable to the modes of transport concerned"</b> ) and of the duties listed in 1.8.3.3.
1.8.6.2.3	... dans les parties 4 et 6...	... in parts 4 <b>or</b> 6...
1.8.7.6.2 b)	peut autoriser le service interne d'inspection...	may authorize the in-house inspection service <b>of the applicant...</b>
2.2.1.1.5 (Division 1.4)	... un danger mineur en cas de ...	... a slight risk of explosion ...
2.2.41.4 Remarks (9)	Cette rubrique s'applique aux préparations des esters....	This entry applies to <b>mixtures</b> of esters ....
2.2.52.1.8	Le classement des peroxydes organiques non énumérés au 2.2.5.2.4 ...	Classification of organic peroxide, formulations or mixtures of organic peroxides non listed in 2.2.52.4 ... <b>Amend the beginning to read: "Classification of organic peroxides not listed in 2.2.52.4, ..."</b>
2.2.61.1.8	... la toxicité des matières dont la représentation graphique des coordonnées se trouve à proximité ou juste sur les lignes de séparation ...	substances falling on or near group borderlines ...
2.2.9.1.10.1.3	... les composés organiques .... <b>Remplacer "composés organiques" par "composés inorganiques"</b> .	... inorganic compounds ...
4.1.10.4 MP20	Ne doit pas être emballée en commun avec des marchandises de la classe 1...	Shall not be packed together with goods and articles of Class 1.... <b>In the sentence delete: "and articles"</b> .
5.3.1.1.2	...matières et objets explosibles de la division 1.4....	.... explosives of Division 1.4....
5.3.1.1.2	Lorsque des matières du code de classification 1,5D....	When 1.5D substances ...
6.8.2.3.1	Les matières citées dans le procès-verbal d'expertise doivent être ... <b>Au paragraphe antépénultième, après "Les matières citées dans le certificat", insérer: "ou les groupes de matières autorisées selon l'approche rationalisée"</b>	The substances referred to in the certificate or the group of substances approved according to the rationalized approach shall, ...
7.3.2.6.1 (b)	Les conteneurs pour vrac fermé ou ... <b>Remplacer "à toit fermé" par "fermés"</b> .	Closed and sheeted bulk containers ...
7.3.1.10	... soumis aux mêmes prescriptions que les conteneurs pour vrac, ... <b>Après "aux mêmes prescriptions", insérer "de l'ADR"</b>	... shall be treated in the same manner as is required by ADR for a filled bulk container, ...
7.3.2.6.1 (e)	Les conteneurs pour vrac bâchées ou à toit fermé ... <b>Remplacer "à toit fermé" par: "fermés"</b>	Closed and sheeted bulk containers ...



**Informal document INF.28 of the 96<sup>th</sup> session of WP.15**

**Economic Commission for Europe**

**Inland Transport Committee**

**Working Party on the Transport of Dangerous Goods**

**Ninety-sixth session**

**2 May 2014**

Geneva, 6–9 May 2014

Item 5 of the provisional agenda

**Work of the RID/ADR/ADN Joint Meeting**

**Reference to EN 1626 Valves for cryogenic service**

**Transmitted by the Government of France**

**Introduction**

1. At the Joint Meeting in March 2014 the proposal of the Working Group on Standards to introduce in Chapters 6.2 and 6.8 a reference to EN 1626:2008 Cryogenic vessels – Valves for cryogenic service was adopted. This decision is reflected on pages 7 and 8 of INF.5/Rev.1.
2. This standard includes two categories of valves depending on the number of cycles. Valves of category B are operated only 20 times per year which is not appropriate for the purpose of gas receptacles and tanks for the carriage of dangerous goods.
3. To avoid any misinterpretation and any problem with the application of this standard, we propose to exclude this category of valve.

**Proposal**

4. In the Table in 6.2.4.1, under "for closures", amend the entry for EN 1626:2008 as follows:

EN 1626:2008 (except valve category B)	Cryogenic vessels – Valves for cryogenic service	6.2.3.1 and 6.2.3.4	Until further notice	
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5. In the Table in 6.8.2.6.1, amend the entry for EN 1626:2008 as follows:

EN 1626:2008 (except valve category B)	Cryogenic vessels – Valves for cryogenic service	6.8.2.4 and 6.8.3.4	Until further notice	
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**Economic Commission for Europe**

Inland Transport Committee

**Working Party on the Transport of Dangerous Goods**

**Ninety-sixth session**

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Geneva, 6–9 May 2014

Item 6(b) of the provisional agenda

**Proposals for amendments to Annexes A and B of ADR:  
miscellaneous proposals**

**Exemption for the liquids used to reduce exhaust gases  
dangerous for the environment**

**Transmitted by the Government of Switzerland**

*Summary*

**Executive summary:** To envisage an exemption for products used in the engines in order to reduce the gas emissions dangerous for the environment

1. Recently we have been confronted with the question of the application of ADR rules for liquids used in the car industry to reduce the gas exhausts dangerous for the environment. Switzerland would like to know if the Contracting Parties to ADR are also confronted with questions coming from industry tending to authorize or exempt products used in the engines of the vehicles intended to reduce the gas emissions dangerous for the environment.
2. The requirements of environmental protection and the standards of emission of air pollutants lead industry to seek solutions with an aim of reducing to the maximum the particle and gas emission which causes the greenhouse effect or which are dangerous for the ozone layer. Various solutions appear and will appear these next years which will be used to take account of these requirements increasingly more strict for the combustion engines.
3. In certain cases these products are dangerous and fall under the rules of ADR. Taking into account the products considered can belong to various classes, it is not possible to find solutions in the ADR for each of them on a case-by-case basis. That would be likely to multiply the texts ADR in a useless way.
4. A more pragmatic approach would be to admit that the equipment used for the approved vehicles and their equipment corresponds to safety requirements tested by the authorities responsible for the safety of these vehicles and that, consequently, these devices do not present particular dangers which justify to apply to them in addition the rules of the ADR. It is with this approach that the exemptions of 1.1.3.2 a), b), d) and e), 1.1.3.3, 1.1.3.7 were introduced. However the products in question which are used to improve the efficiency of the combustion engines and to reduce impact to the environment are not covered by any of the quoted exemptions.

5. Taking into account they are used for the propulsion of the vehicle or for the operation of one of their equipment we would be interested to know if an exemption going in the direction to treat these products according to their use and to exempt them according to this aspect would not be possible.

6. Considering the very specific type of use it should be possible to exempt them within the framework of the existing exemptions already mentioned. For that it would be enough to extend the scope of the existing exemptions to any product being used for the propulsion or operation of one of the equipment of the vehicle. For the moment the question arose only in the case of the liquid fuels. For this reason we present hereafter a manner of tackling the problem in the case of the liquid fuels.

7. Thus 1.1.3.3 could be modified as follows:

Modify the heading of 1.1.3.3 as follows:

**"1.1.3.3      *Exemptions related to the carriage of liquid fuels and liquid products, destined for the propulsion of a vehicle or for the operation of any of its equipment***

Add a paragraph 1.1.3.3 (d) (1.1.3.3 c) is in ADR 2015 dedicated to the fuel for non road mobile machinery)

"1.1.3.3      **d)      The exemptions 1.1.3.3 a) to c) above are also applicable to the liquids intended to reduce the gas emission of the engines. In case of 1.1.3.3 a) the sum of the quantities per transport unit of these liquids and fuel shall not exceed the quantities allowed in 1.1.3.3 a).**"

8. We think that this question arises more for the road vehicles than for the railroads. Nevertheless if such an approach were acceptable for the members of the WP.15, we could present it at the next session of the Joint Meeting and of the WP.15.

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Informal document INF.31 of the 96<sup>th</sup> session of WP.15**Economic Commission for Europe****Inland Transport Committee****Working Party on the Transport of Dangerous Goods****Ninety-sixth session****1 May 2014**

Geneva, 6–9 May 2014

Item 6 (b) of the provisional agenda

**Proposals for amendments to Annexes A and B of ADR:  
miscellaneous proposals****Updating of a standard****Transmitted by the European Industrial Gases Association (EIGA)****Introduction**

1. At the Joint Meeting in March 2014 the recommendation of the Standards Working Group to replace EN 1975:1999 by EN ISO 7866:2012 was adopted. This decision is reflected on page 7 of INF.5 rev.1 before this meeting.

2. In June 2013, at its forty-third session the UN Sub-Committee of Experts on the Transport of Dangerous Goods adopted ISO 7866:2012 as the standard for the construction of seamless aluminum alloy UN Cylinders. This decision is recorded in ST/SG/AC.10/C.3/86/Add.1. Because of the timetable of publication of the UN Recommendations on the Transport of Dangerous Goods, and the process of harmonization this standard will not appear in ADR until January 2017.

3. It would be very helpful to manufacturers and users of aluminium gas cylinders if the standard for aluminium alloy ADR cylinders and UN cylinders were the same. There is provision in the UN Model Regulations for the early adoption of revised standards and this is given by Note 1 appearing at the start of section 6.2.2 which reads:

*“NOTE 1: With the agreement of the competent authority, more recently published versions of the standards, if available, may be used.”* (This note is not in ADR.)

**Proposal**

4. In the table in 6.2.2.1, for ISO 7866:1999, in the column “Applicable for manufacture”, replace “Until further notice” with “Until 31 December 2020”.

After the entry for ISO 7866:1999, insert a new entry to read as follows:

ISO 7866: 2012	Gas cylinders – Refillable seamless aluminium alloy gas cylinders – Design, construction and testing <i>NOTE: Aluminium alloy 6351A or equivalent shall not be used.</i>	Until further notice
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5. In 4.1.4.1, P200 (10) u Replace “ISO 7866:1999” with “ISO 7866:2012”.

Informal document INF.32 of the 96<sup>th</sup> session of WP.15**Economic Commission for Europe****Inland Transport Committee****Working Party on the Transport of Dangerous Goods****Ninety-sixth session****6 May 2014**

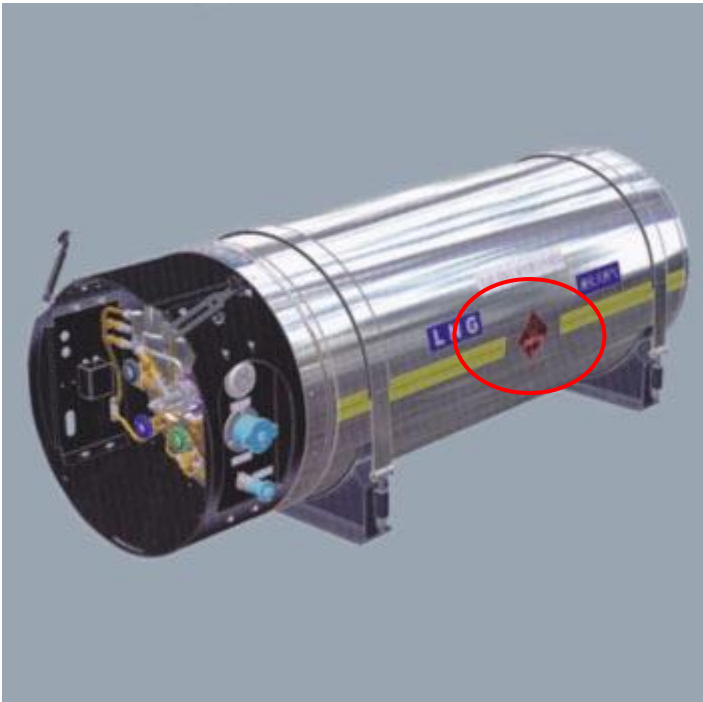
Geneva, 6–9 May 2014

Item 6(a) of the provisional agenda

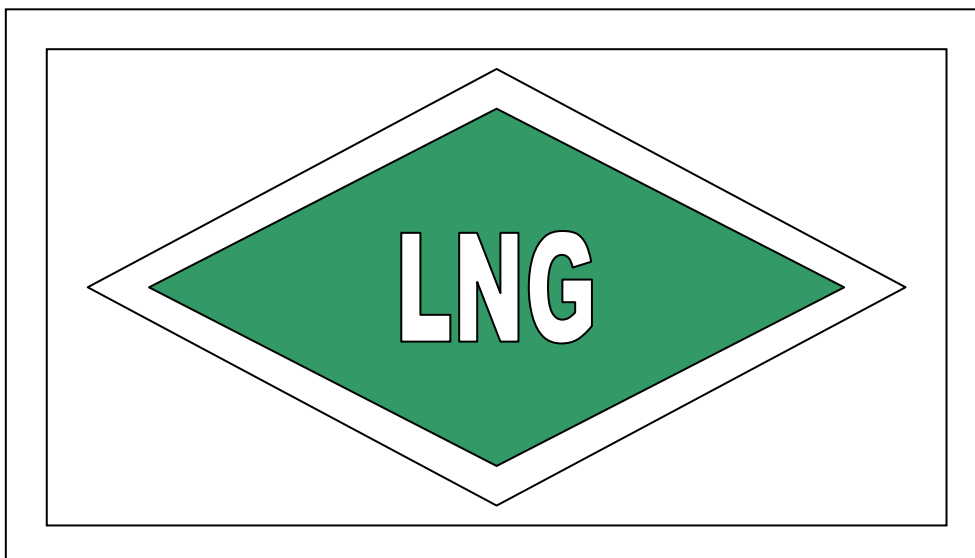
**Proposals for amendments to Annexes A and B of ADR:  
construction and approval of vehicles****LNG as fuel for vehicles – labelling and SP 660****Transmitted by the Government of Belgium***Summary*

<b>Executive summary:</b>	Clarification on labelling of LNG receptacles when used as fuel reservoirs for the propulsion of vehicles
<b>Action to be taken:</b>	Clarify the applicability of ADR labelling requirements for LNG cylinders used as fuel reservoirs for the propulsion of vehicles in general and ADR vehicles in particular
<b>Reference documents:</b>	2014/2 + inf.11 (96 <sup>th</sup> session of WP.15)

1. At its Autumn 2013 session, the WP.15 discussed the use of LNG as fuel for ADR vehicles. For the 96<sup>th</sup> session, documents 2014/2 (Netherlands) and INF.11 (Germany) have been submitted under the same topic. Linked to this topic is the actual observed practice of labelling of these LNG cylinders, when installed in or onto vehicles to provide fuel for propulsion. From national experience it is tentatively concluded that LNG will find its initial application as propulsion fuel typically for vehicles for categories N, O and M. Below are several observed labelling practices:



2. Following these examples, Belgium notes that the only mandatory labelling requirement for LNG in the revision of R 110 is for M2 and M3 vehicles (see revised R110 §18.1.8.2), with the following label:



3. Nothing however is specified for the LNG cylinder itself. Several fire emergency services have already expressed their desire for enhanced identification of these vehicles containing an LNG reservoir.

4. Additionally, under ADR 1.1.3.2 (a) it is indicated that none of the labels under ADR 5.2 are mandatory on an LNG cylinder when installed for the purpose of propulsion of the vehicle or even that none of the provisions of ADR are applicable whatsoever.

5. It is however noted that these cylinders are often labelled according to ADR (or otherwise – see picture 1). The LNG cylinders currently on the market are commonly, but not exclusively, constructed according to EN 1251-2, listed in ADR 6.2.4.1.

6. Lastly, SP 660 continues to apply the labelling provisions to LPG, CNG and hydrogen cylinders when carried as a load, see SP 660 (f). However, SP 660 still contains the reference to R110 without the inclusion of LNG in its title nor a reference to the revised supplement 1 to revision 1 of these regulations. For this reason, ECE R 110 conforming LNG cylinders not conforming to ADR 6.2 cannot be transported normally as a load when still containing traces of LNG.

## Proposals

**7. Proposal 1:** include LNG in the scope of SP 660 through an updated reference to R 110 in footnote 6 and additionally assign SP 660 to UN 1972 METHANE, REFRIGERATED LIQUID or NATURAL GAS, REFRIGERATED LIQUID with high methane content.

**8. Proposal 2:** discuss :

- if LNG cylinder marking is appropriate or advisable also when the cylinder is installed in the vehicle or vehicle marking is appropriate also for category N and O vehicles
- if so, which label is appropriate and consider consequential amendments in ADR or feedback to GRSG for consideration in R 110, as deemed necessary.

**Informal document INF.33 of the 96<sup>th</sup> session of WP.15****Economic Commission for Europe****Inland Transport Committee****Working Party on the Transport of Dangerous Goods****Ninety-sixth session****6 May 2014**

Geneva, 6–9 May 2014

Item 5 of the provisional agenda

**Work of the RID/ADR/ADN Joint Meeting****Proposal for the use of flexible bulk containers (FBC)****Transmitted by the International Dangerous Goods and Containers Association (IDGCA)**

1. In the Report of the Joint Meeting related to its spring 2014 session work ECE/TRANS/WP.15/AC.1/134, Section VI, it.35 to 38, the IDGCA was proposed to perform tests of the FBC in compliance with requirements of UN Regulation, it.6.8.5 in full scope excluding the Top lift test that had been performed earlier. The Test Report was presented to INF.46 at the spring session of the joint meeting in 2014 and in this information document.

2. In the Report of the Experts Joint Meeting on Rules attached to the European Agreement concerning the International Carriage of Dangerous Goods on Inland Waterway relating to its twenty fourth session, ECE/TRANS/WP.15/AC.2/50,

In the Report of Joint Meeting of RID Committee of Experts and Working Party on the Transport of Dangerous Goods relating to its Autumn session 2013 work ECE/TRANS/WP.15/AC.1/132,

In the Report of Working Party on the Transport of Dangerous Goods relating to its ninety fifth session, ECE/TRANS/WP.15/221,

the IDGCA was proposed to formulate requirements to vehicles providing FCBs safe transportation . The IDGCA formulated these requirements in INF.45 and submitted them at the spring session of the joint meeting in 2014 and in this document.

**Proposal**

3. All tests of flexible bulk containers were conducted in compliance with the requirements of UN Regulation, it.6.8.5 in full scope. The test reports and video and photo materials of Drop tests, Topple tests, Righting tests, Stacking test and Tear tests, as well as the Test Methodology and Test Program are presented in this information document.

4. The formulated requirement for vehicles designed for FBC transportation is as follows:

7.5.7.6 Loading of flexible bulk containers

7.5.7.6.1 Flexible bulk containers shall be carried within a vehicle /1 with rigid sides and ends that extend at least two-thirds of the height of the flexible bulk container

<sup>1</sup> The vehicle shall be equipped with a vehicle stability function according to UN regulation No. 13 series of Amendments 11.



## Justification

5. The tilt angle test according UN-R 111 is accepted due to tests/proofs (95th Session of the Working Group on Dangerous Cargo Transportation, information of Testing Vehicles loaded with flexible containers (WP.15 Inf. 18))

6. The vehicle stability function is mandatory for.

5.2.1.32. Subject to the provisions of paragraph 12.4 of this Regulation, all vehicles in categories M<sub>2</sub>, M<sub>3</sub>, N<sub>2</sub> и N<sub>3</sub><sup>12)</sup>, having no more than 3 axes shall be equipped with a vehicle stability function. This shall include roll-over control and directions control and meet the technical requirements if Annex 21 to this Regulation.

<sup>12)</sup> Off-road vehicles, special purpose vehicles (e.g. mobile plants using non-standard vehicles chassis – e.g. cranes, hydro-static driven vehicles, in which the hydraulic drive system is also used for braking and auxiliary functions). Class 1 and Class A buses of categories M<sub>2</sub> and M<sub>3</sub>, articulated buses and coaches, N<sub>2</sub> tractors for semi-trailer with a gross vehicle mass (GVM) between 3.5 to 7.5 tons, shall be excluded from this requirement.

According to footnote 1 also 4 axle vehicles equipped with the vehicle stabilization function and also the other vehicles which are exempted according to footnote 12 of the UN-R13/11.

7. The vehicle stability function is well-proven and established on the market. The following table shows the transitional provisions for the vehicle stabilisation function of the UN-R13/11. Date of entry into force of the 11 series of amendments was 11 July 2008 proving further that this is established on the market.

Vehicle Category	Application date (as from the date after entry into force of the 11 series of amendments)	
	Contracting Parties applying this Regulation shall grant approvals only if the vehicle type to be approved meets the requirements of this Regulation as amended by the 11 series of amendments	Contracting Parties applying this Regulation may refuse first national or regional registration of a vehicle which does not meet the requirements of the 11 series of amendments to this Regulation
M <sub>2</sub>	60 months	84 months
M <sub>3</sub> (Class III) <sup>22)</sup>	12 months	36 months
M <sub>3</sub> < 16 tonnes (pneumatic transmission)	24 months	48 months
M <sub>3</sub> (Class II and B (hydraulic transmission))	60 months	84 months
M <sub>3</sub> (Class III) (hydraulic transmission)	60 months	84 months
M <sub>3</sub> (Class III) (pneumatic control transmission and hydraulic energy transmission)	72 months	96 months
M <sub>3</sub> (Class II) (pneumatic control transmission and hydraulic energy transmission)	72 months	96 months
M <sub>3</sub> (other than above)	24 months	48 months
N <sub>2</sub> (hydraulic transmission)	60 months	84 months
N <sub>2</sub> (pneumatic control transmission and hydraulic energy transmission)	72 months	96 months
N <sub>2</sub> (other than above)	48 months	72 months
N <sub>3</sub> (2 axle tractors for semi-trailers)	12 months	36 months
N <sub>3</sub> (2 axle tractors for semi-trailers with pneumatic control transmission (ABS))	36 months	60 months
N <sub>3</sub> (3 axles with electric control transmission (EBS))	36 months	60 months
N <sub>3</sub> (2 and 3 axles with pneumatic control transmission (ABS))	48 months	72 months
N <sub>3</sub> (other than above)	24 months	48 months
O <sub>3</sub> (combined axle load between 3.5 – 7.5 tonnes)	48 months	72 months
O <sub>3</sub> (other than above)	36 months	60 months
O <sub>4</sub>	24 months	36 months

Source: UN-R13/11 Item 12.4.1

8. The following abstract shows the dynamic manoeuvres, which shall be tested (UN-R13/11 Annex 21 Item 2.2.3).

As a means of demonstrating the vehicle stability function any of the following dynamic manoeuvres shall be used <sup>6)</sup>:

Directional Control	Roll-Over Control
Reducing radius test	Steady state circular test
Step steer input test	J-turn
Sine with dwell	
J-turn	
μ-split single lane change	
Double lane change	
Reversed steering test or "fish hook" test	
Asymmetrical one period sine steer or pulse steer input test	

To demonstrate repeatability the vehicle will be subject to a second demonstration using the selected manoeuvre(s).

These manoeuvres prove that the vehicle stabilisation function prevents obviously dangerous driving manoeuvres.

9. The most important issue is the correct load securing. This issue is addressed and solved in item 7.5.7.6.2.

10. We ask Experts of the Working Party on the Transport of Dangerous Goods to consider a possibility to remove square brackets and permit application of FBC in ADR from 2015.

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Informal document INF.34 of the 96<sup>th</sup> session of WP.15**Economic Commission for Europe**

Inland Transport Committee

**Working Party on the Transport of Dangerous Goods**

Ninety-sixth session

7 May 2014

Geneva, 6–9 May 2014

Item 5 (a) of the provisional agenda

**Proposals for amendments to Annexes A and B of ADR:  
construction and approval of vehicles****Definition of non-road mobile machinery**- **Transmitted by the European Union***Summary*

<b>Executive summary:</b>	Propose a revised definition of non-road mobile machinery following the discussion the room
<b>Related document:</b>	INF.5/Rev.1
<b>Action to be taken:</b>	Revise the proposed amendment to 1.1.3.3.

**A. Introduction**

1. Certain contracting parties during the WP 15 felt that the reference to the definition of “non-road mobile machinery” in Article 2 of Directive 97/68/EC in the proposed amendment to 1.1.3.3 adopted in the 2014 spring session of Joint Meeting RID/ADR/ADN (WP.15/AC.1) is not clear as they had not have access to the this text.
2. Other contracting parties felt that the reference to Article 2 of Directive 97/68/EC is appropriate and should be maintained;
3. Under request of the Chair, the European Union drafted a proposal for a new version of the amendment to 1.1.3.3.
4. A definition of “non-road mobile machinery” is in Article 2.7 of the Consolidated Resolution on the Construction of Vehicles (R.E.3) and may be used contracting parties as alternative to the reference to the EU Directive 97/68/EC. For the purposes of ADR the two definitions are identical.

**B. Amendment**

5. Revise the proposed amendment to 1.1.3.3 by introducing a reference to the Consolidated Resolution on the Construction of Vehicles (R.E.3):

**Proposed provision:**

"(c) fuel contained in the tanks of non-road mobile machinery<sup>1</sup>, ~~as defined in Article 2 of Directive 97/68/EC<sup>+</sup>~~ which is carried as a load, when it is destined for its propulsion or the operation of any of its equipment. The fuel may be carried in fixed fuel tanks connected directly to the vehicle engine and/or equipment and which meet the legal requirements. Where appropriate, this machinery shall be loaded upright and secured against falling."

**Footnote to 1.1.3.3 (c)**

- 1) For the definition of non- road mobile machinery see Article 2.7 of the Consolidated Resolution on the Construction of Vehicles (R.E.3) or Article 2 of Directive 97/68/EC of the European Parliament and of the Council of 16 December 1997 on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery (Official Journal of the European Communities No. L 059 of 27 February 1998.

**C. Justification**

8. The proposed amendment clarifies the definition of non-mobile road machinery by referencing both the international provisions and EU legislation. The two definitions are identical for the purposes of ADR.

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Informal document INF.36 of the 96<sup>th</sup> session of WP.15

**Economic Commission for Europe**

Inland Transport Committee

**Working Party on the Transport of Dangerous Goods**

**Ninety-sixth session**

**May 2014**

Geneva, 6–9 May 2014

Item 6 (b) of the provisional agenda

**Proposals for amendments to Annexes A and B of ADR:**

**miscellaneous proposals**

8

**ADR 2013 Table of Precedence of Hazards 2.1.3.10**

**Transmitted by the Government of Ireland**

ADR 2.1.3.10 Table of precedence of hazards – WITH CORRECTIONS

Highlight Key: Packing group missing  
 Error

	4.1, II	4.1, III	4.2, II	4.2, III	4.3, I	4.3, II	4.3, III	5.1, I	5.1, II	5.1, III	6.1, I DERMAL	6.1, I ORAL	6.1, II	6.1, III	8, I	8, II	8, III	9
3, I	SOL LIQ 4.1,II 3, I	SOL LIQ 4.1,III 3, I	SOL LIQ 4.2,II 3, I	SOL LIQ 4.2,III 3, I	4.3, I	3, I	3, I	SOL LIQ 5.1, I 3, I	SOL LIQ 5.1, II 3, I	SOL LIQ 5.1, III 3, I	3, I	3, I	3, I	3, I	3, I	3, I	3, I	3, I
3, II	SOL LIQ 4.1,II 3, II	SOL LIQ 4.1,III 3, II	SOL LIQ 4.2,II 3, II	SOL LIQ 4.2,III 3, II	4.3, I	4.3, II	3, II	SOL LIQ 5.1, I 3, II	SOL LIQ 5.1, II 3, II	SOL LIQ 5.1, III 3, II	6.1, I	6.1, I	3, II	3, II	8, I	3, II	3, II	3, II
3, III	SOL LIQ 4.1,II 3, III	SOL LIQ 4.1,III 3, III	SOL LIQ 4.2,II 3, III	SOL LIQ 4.2,III 3, III	4.3, I	4.3, II	4.3, III	SOL LIQ 5.1, I 3, III	SOL LIQ 5.1, II 3, III	SOL LIQ 5.1, III 3, III	6.1, I	6.1, I	6.1, II	3, III <sup>a</sup>	8, I	8, II	3, III	3, III
4.1, II			4.2, II	4.1, II	4.3, I	4.3, II	4.1, II	5.1, I	4.1, II	4.1, II	6.1, I	6.1, I	SOL LIQ 4.1, II 6.1, II	SOL LIQ 4.1, II 6.1, III	8, I	SOL LIQ 4.1, II 8, II	SOL LIQ 4.1, II 8, III	4.1, II
4.1, III			4.2, II	4.2, III	4.3, I	4.3, II	4.3, III	5.1, I	5.1, II	4.1, III	6.1, I	6.1, I	6.1, II	SOL LIQ 4.1, III 6.1, III	8, I	8, II	SOL LIQ 4.1, III 8, III	4.1, III
4.2, II					4.3, I	4.3, II	4.2, II	5.1, I	4.2, II	4.2, II	6.1, I	6.1, I	4.2, II	4.2, II	8, I	4.2, II	4.2, II	4.2, II
4.2, III					4.3, I	4.3, II	4.3, III	5.1, I	5.1, II	4.2, III	6.1, I	6.1, I	6.1, II	4.2, III	8, I	8, II	4.2, III	4.2, III
4.3, I								5.1, I	4.3, I	4.3, I	6.1, I	4.3, I	4.3, I	4.3, I	4.3, I	4.3, I	4.3, I	4.3, I
4.3, II								5.1, I	4.3, II	4.3, II	6.1, I	6.1, I	4.3, II	4.3, II	8, I	4.3, II	4.3, II	4.3, II
4.3, III								5.1, I	5.1, II	4.3, III	6.1, I	6.1, I	6.1, II	4.3, III	8, I	8, II	4.3, III	4.3, III
5.1, I											5.1, I	5.1, I	5.1, I	5.1, I	5.1, I	5.1, I	5.1, I	5.1, I
5.1, II											6.1, I	6.1, I	5.1, II	5.1, II	8, I	5.1, II	5.1, II	5.1, II
5.1, III											6.1, I	6.1, I	6.1, II	5.1, III	8, I	8, II	5.1, III	5.1, III
6.1, I DERMAL															SOL LIQ 6.1, I 8, I	6.1, I	6.1, I	6.1, I
6.1, I ORAL															SOL LIQ 6.1, I 8, I	6.1, I	6.1, I	6.1, I
6.1, II INHAL															SOL LIQ 6.1, I 8, I	6.1, II	6.1, II	6.1, II
6.1, II DERMAL															SOL LIQ 6.1, I 8, I	SOL LIQ 6.1, II 8, II	6.1, II	6.1, II
6.1, II ORAL															8, I	SOL LIQ 6.1, II 8, II	6.1, II	6.1, II
6.1, III															8, I	8, II	8, III	6.1, III
8, I																		8, I
8, II																		8, II
8, III																		8, III

SOL = Solid substances and mixtures  
 LIQ = Liquid substances, mixtures and solutions  
 DERMAL = Dermal toxicity  
 ORAL = Oral toxicity  
 INHAL = Inhalation toxicity  
<sup>a</sup> Class 6.1 for pesticides