

## **Economic Commission for Europe**

### **Inland Transport Committee**

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

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

Geneva, 15–25 September 2015

Item 2 of the provisional agenda

**Harmonization with the United Nations Recommendations on the Transport of Dangerous Goods**

### **Carriage of vehicles engines and machinery – harmonisation with UN Model Regulations – comments on ECE/TRANS/WP.15/AC.1/2015/23 add1**

**Transmitted by the Government of France**

#### **Introduction**

1. The Ad Hoc Working Group on the Harmonization of RID/ADR/ADN with the United Nations Recommendations on the Transport of Dangerous Goods invited France to draft a comprehensive proposal dealing globally with engines, machinery and vehicles and special provision 363, to be discussed at the September session of the Joint Meeting, together with other points concerning harmonisation with the UN Model Regulations. (see ECE/TRANS/WP.15/AC.1/2015/23 para. 11 and 14.)

2. The Ad Hoc Working Group felt that the spirit of the UN Recommendations would be better observed if exemptions concerning vehicles, engines and machinery moving independently on the road were placed in section 1.1.3, while those concerning vehicles, engines or machinery carried as cargo were dealt with through special provisions in Chapter 3.3. The Chairman said that the Government of France was intending to submit a comprehensive proposal to solve all these questions of exemption.

3. To meet these conditions it is necessary to include in RID/ADR entries concerning vehicles as well as the special provisions containing their definitions. These may be copied from the UN Model Regulations in order to be harmonised

4. This document contains proposals in order to satisfy that principles mentioned in ECE/TRANS/WP.15/AC.1/2015/23 para. 11 and 14 as well as in ECE/TRANS/WP.15/AC.1/134 para. 27 and ECE/TRANS/WP.15/AC.1/136, para.33 during the two last sessions of the Joint Meeting.

5. Therefore it does contain three type proposals:

- existing requirements in the current version are moved to another place (special provision instead of 1.1.3)

- some new provisions are introduced only when they are necessary to harmonise with the UN Recommendations

- some modifications of existing provisions have been proposed when contradictions or unclear situations have been identified in the current text.

Fundamentally the proposal does not create new requirements unless made necessary by harmonization with the UN Recommendations. To facilitate the reading and the understanding of the proposals a correspondence table is attached in annex II. This table shows where the proposals come from (current RID/ADR/ADN or new UN text) and give detailed explanation and justification for each proposal. At some occasion several options are provided.

By adopting the proposed provisions multi-modal harmonisation would be improved, without losing the current exemptions under RID/ADR/ADN.

6. However keeping in mind comments that have been made, in relation with the status of vehicles, during former sessions of the Joint Meeting, some general comments need to be made in order to clarify the discussions. And also to help delegations that have not been able to participate to the ad hoc working group.

7. Currently it is felt that vehicles are totally exempted by a mention in the table under the two corresponding entries UN3166 and UN3171. However some ambiguity results from that. Firstly the precise scope of this exemption is not clear as the definition of what is meant by vehicle for that purpose (which is different from other definitions in RID ADR ADN) does not appear because these definitions are contained in special provisions assigned to these UN numbers. Secondly, the exemptions concerning vehicles does not say anything about the dangerous goods contained in these vehicles and in many others places of RID/ADR/ADN there are additional conditions for exempting these goods, In 1.1.3. for instance or in special provision 356. Therefore already today the carriage of vehicles containing dangerous goods is not totally exempted but exempted under conditions.

8. The only point that is sure is that, by the statement in the table of chapter 3.2 vehicles do not need to be shipped under the corresponding UN numbers (3166 or 3171) but it does not say anything clear about exemptions concerning the dangerous goods contained in them. Otherwise the conditions under 1.1.3. or special provision 356 would not apply as they are part of RID/ADR/ADN and they would consequently have no meaning. The same doubt exists for lithium batteries as there is a general requirement for any battery that is carried to be manufactured in conformity with a tested design type unless it is covered by special provisions 301 or 376.

9. The conclusion that all dangerous goods contained in a vehicle are also exempted by the statement in the table result from an inference that far from being legally solid.

10. Special provision 356 (assigned to 3468) concerning metal hydride storage systems is a very good example of this problem because it is in direct contradiction both with the table and also with 1.1.3.7. It also shows that because the structure of RID/ADR/ADN is still different from the UN recommendation for these exemptions it may lead to further mistakes. Indeed that special provision has been adopted for some years now and the problem have only been noticed now when a detailed analysis has been made for this paper.

11. When special provision 363 was first included in RID/ADR/ADN the option of having it included in 1.1.3 was first considered, because it is after all also an exemption regime under conditions, and finally the Joint Meeting took a reverse decision to keep it as a special provision. Since that time it seems more logical to act the same way for all similar cases including vehicles

12. We believe that the structure proposed according to the principles already agreed by the Joint Meeting and the ad hoc working group will both clarify the meaning of RID/ADR/ADN. And avoid further mistakes in future amendments related to harmonization with the UN Recommendations.

## Proposals

### Proposal 1

Amend Table A for UN 3166 and 3171, as shown in the annex.

Add the three new entries UN 3528, 3529, 3530 as proposed in document ECE/TRANS/WP.15/AC.1/2015/23/Add.1

### Proposal 2

Introduce special provisions 240 and 312, and 385 of the UN Recommendations into Chapter 3.3 of RID/ADR as they appear in the 19<sup>th</sup> revised edition of the UN Model Regulations, except for a reference to 2.2.9.1.7 instead of 2.9.4, as follows:

**“240** This entry only applies to vehicles powered by wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries and equipment powered by wet batteries or sodium batteries transported with these batteries installed. Lithium batteries shall meet the requirements of 2.2.9.1.7, except when otherwise provided for in RID/ADR/ADN (e.g. for prototype batteries and small production runs under special provision 310 or damaged batteries under special provision 376).

For the purpose of this special provision, vehicles are self-propelled apparatus designed to carry one or more persons or goods. Examples of such vehicles are electrically-powered cars, motorcycles, scooters, three- and four-wheeled vehicles or motorcycles, trucks, locomotives, bicycles (pedal cycles with an electric motor) and other vehicles of this type (e.g. self-balancing vehicles or vehicles not equipped with at least one seating position), wheel chairs, lawn tractors, self-propelled farming and construction equipment, boats and aircraft. This includes vehicles transported in a packaging. In this case some parts of the vehicle may be detached from its frame to fit into the packaging.

Examples of equipment are lawnmowers, cleaning machines or model boats and model aircraft. Equipment powered by lithium metal batteries or lithium ion batteries shall be consigned under the entries UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or UN 3091 LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT or UN 3481 LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or UN 3481 LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, as appropriate. Hybrid electric vehicles powered by both an internal combustion engine and wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, transported with the battery(ies) installed shall be consigned under the entries UN 3166 VEHICLE, FLAMMABLE GAS POWERED or UN 3166 VEHICLE, FLAMMABLE LIQUID POWERED, as appropriate. Vehicles which contain a fuel cell shall be consigned under the entries UN 3166 VEHICLE, FUEL CELL, FLAMMABLE GAS POWERED or UN 3166 VEHICLE, FUEL CELL, FLAMMABLE LIQUID POWERED, as appropriate.

Vehicles may contain other dangerous goods than batteries (e.g. fire extinguishers, compressed gas accumulators or safety devices) required for their functioning or safe operation without being subject to any additional requirements for these other dangerous goods, unless otherwise specified in RID/ADR/ADN.”

**“312** Vehicles powered by a fuel cell engine shall be consigned under the entries UN No. 3166 VEHICLE, FUEL CELL, FLAMMABLE GAS POWERED or UN No. 3166 VEHICLE, FUEL CELL, FLAMMABLE LIQUID POWERED, as appropriate. These entries include hybrid electric vehicles powered by both a fuel cell and an internal combustion engine with wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, transported with the battery(ies) installed.

Other vehicles which contain an internal combustion engine shall be consigned under the entries UN 3166 VEHICLE, FLAMMABLE GAS POWERED or UN 3166 VEHICLE,

**FLAMMABLE LIQUID POWERED**, as appropriate. These entries include hybrid electric vehicles powered by both an internal combustion engine and wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, transported with the battery(ies) installed.

Lithium batteries shall meet the requirements of 2.2.9.1.7, except when otherwise provided for in RID/ADR/ADN (e.g. for prototype batteries and small production runs under special provision 310 or damaged batteries under special provision 376)."

**385** This entry applies to vehicles powered by flammable liquid or gas internal combustion engines or fuel cells.

Hybrid electric vehicles powered by both an internal combustion engine and wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, transported with the batteries installed shall be consigned under this entry. Vehicles powered by wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, transported with the batteries installed, shall be consigned under the entry UN No. 3171 BATTERYPOWERED VEHICLE (see special provision 240).

For the purpose of this special provision, vehicles are self-propelled apparatus designed to carry one or more persons or goods. Examples of such vehicles are cars, motorcycles, trucks, locomotives, scooters, three- and four-wheeled vehicles or motorcycles, lawn tractors, self-propelled farming and construction equipment, boats and aircraft.

Dangerous goods such as batteries, air bags, fire extinguishers, compressed gas accumulators, safety devices and other integral components of the vehicle that are necessary for the operation of the vehicle or for the safety of its operator or passengers, shall be securely installed in the vehicle and are not otherwise subject to these Regulations. However, lithium batteries shall meet the requirements of 2.2.9.1.7, except when otherwise specified by these Regulations (e.g. for prototype batteries and small production runs under special provision 310 or damaged batteries under special provision 376).

### Proposal 3

Modify Special provisions 363 as proposed in document ECE/TRANS/WP.15/AC.1/2015/23/Add.1 with three options for para. (g)(vi) to be discussed:

**"363 (a)** This entry applies to engines or machinery, powered by fuels classified as dangerous goods via internal combustion systems or fuel cells (e.g. combustion engines, generators, compressors, turbines, heating units, etc.), in quantities above those specified in column (7a) of Table A of Chapter 3.2, except those which are assigned to UN No. 3166 or their equipments mentioned in special provision 6XX (a).

(b) Engines or machinery which are empty of liquid or gaseous fuels and which do not contain other dangerous goods, are not subject to RID/ADR/ADN.

*NOTE 1: An engine or machinery is considered to be empty of liquid fuel when the liquid fuel tank has been drained and the engine or machinery cannot be operated due to a lack of fuel. Engine or machinery components such as fuel lines, fuel filters and injectors do not need to be cleaned, drained or purged to be considered empty of liquid fuels. In addition, the liquid fuel tank does not need to be cleaned or purged.*

*NOTE 2: An engine or machinery is considered to be empty of gaseous fuels when the gaseous fuel tanks are empty of liquid (for liquefied gases), the positive pressure in the tanks does not exceed 2 bar and the fuel shut-off or isolation valve is closed and secured.*

(c) Engines and machinery containing fuels meeting the classification criteria of Class 3 shall be consigned under the entries UN No. 3528 ENGINE,

INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED or UN No. 3528 ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED or UN No. 3528 MACHINERY, INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED or UN No. 3528 MACHINERY, FUEL CELL, FLAMMABLE LIQUID POWERED, as appropriate.

- (d) Engines and machinery containing fuels meeting the classification criteria of flammable gases of Class 2 shall be consigned under the entries UN No. 3529 ENGINE, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED or UN No. 3529 ENGINE, FUEL CELL, FLAMMABLE GAS POWERED or UN No. 3529 MACHINERY, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED or UN No. 3529 MACHINERY, FUEL CELL, FLAMMABLE GAS POWERED, as appropriate.

Engines and machinery powered by both a flammable gas and a flammable liquid shall be consigned under the appropriate UN No. 3529 entry.

(e) Engines and machinery containing liquid fuels meeting the classification criteria of 2.2.9.1.10 for environmentally hazardous substances and not meeting the classification criteria of any other class shall be consigned under the entries UN No. 3530 ENGINE, INTERNAL COMBUSTION or UN No. 3530 MACHINERY, INTERNAL COMBUSTION, as appropriate.

(f) Engines or machinery may contain other dangerous goods than fuels (e.g. batteries, fire extinguishers, compressed gas accumulators or safety devices) required for their functioning or safe operation without being subject to any additional requirements for these other dangerous goods, unless otherwise specified in RID/ADR/ADN. However, lithium batteries shall meet the requirements of 2.2.9.1.7, except when otherwise specified by RID/ADR/ADN (e.g. for prototype batteries and small production runs under special provision 310 or damaged batteries under special provision 376).

(g) The engines or machinery are not subject to any other requirements of RID/ADR/ADN if the following requirements are met:

  - (i) The engine or machinery, including the means of containment containing dangerous goods, shall be in compliance with the construction requirements specified by the competent authority of the country of manufacture<sup>2</sup>;
  - (ii) Any valves or openings (e.g. venting devices) shall be closed during carriage;
  - (iii) The engines or machinery shall be oriented to prevent inadvertent leakage of dangerous goods and secured by means capable of restraining the engines or machinery to prevent any movement during carriage which would change the orientation or cause them to be damaged;
  - (iv) for UN No. 3528 and UN No. 3530:

<sup>2</sup> For example, compliance with the relevant provisions of Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (Official Journal of the European Union No. L 157 of 9 June 2006, pp. 0024-0086).

Where the engine or machinery contains more than 60 l of liquid fuel and has a capacity of not more than 450 l, the labelling requirements of 5.2.2 shall apply.

Where the engine or machinery contains more than 60 l of liquid fuel and has a capacity of more than 450 l but not more than 3 000 l, it shall be labelled on two opposing sides in accordance with 5.2.2.

Where the engine or machinery contains more than 60 l of liquid fuel and has a capacity of more than 3 000 l, it shall be placarded on two opposing sides. Placards shall correspond to the labels required in Column (5) of Table A of Chapter 3.2 and shall conform to the specifications given in 5.3.1.7. Placards shall be displayed on a background of contrasting colour, or shall have either a dotted or solid outer boundary line.

- (v) for UN No. 3529:

Where the fuel tank of the engine or machinery has a water capacity of not more than 450 l, the labelling requirements of 5.2.2 shall apply.

Where the fuel tank of the engine or machinery has a water capacity of more than 450 l but not more than 1 000 l, it shall be labelled on two opposing sides in accordance with 5.2.2.

Where the fuel tank of the engine or machinery has a water capacity of more than 1 000 l, it shall be placarded on two opposing sides. Placards shall correspond to the labels required in Column (5) of Table A of Chapter 3.2 and shall conform to the specifications given in 5.3.1.7. Placards shall be displayed on a background of contrasting colour, or shall have either a dotted or solid outer boundary line.

[Option 1:

- “(vi) A transport document in accordance with 5.4 is required, except for UN No. 3528 and UN No. 3530, where a transport document is only required when the engine or machinery contains more than 60 l of liquid fuels.

Option 2:

- (vi) A transport document in accordance with 5.4 is required, except for UN No. 3528 and UN No. 3530, where a transport document is only required when the engine or machinery contains more than 1000 l of liquid fuels.

Option 3:

- (vi) A transport document in accordance with 5.4 is required only when the engine or machinery contains more than 1000 l of liquid fuels, for UN 3528 and UN 3530, or has a water capacity of more than 1000 l, for UN 3529.

**Proposal 4**

Introduce a new special provision into Chapter 3.3, as follows:

**“6XX (a)** Vehicles assigned to UN 3166 or UN 3171 in conformity with special provisions 240 ,312 and 385 including trailers, as well as any dangerous goods they contain that are necessary for their operation or the operation of their equipment, when carried as a load, are not subject to any other provisions of [RID/ADR/ADN], provided the following conditions are met:

- (i) For liquid fuels, any fuel cocks between the engine or equipment and the fuel tank shall be closed during carriage unless it is essential for the equipment to remain operational. Where appropriate, the vehicles or other means of conveyance shall be loaded upright and secured against falling;
- (ii) For gaseous fuels, the fuel cock between the gas tank and engine shall be closed and the electric contact open.
- (iii) Metal hydride storage systems shall be approved by the competent authority of the country of manufacture, if the country of manufacture is not a contracting party to RID/ADR/ADN the approval shall be recognized by the competent authority of a contracting party to RID/ADR/ADN
- (iv) The provisions of (i) and (ii) do not apply to vehicles which are empty of liquid or gaseous fuels,

**NOTE 1:** A vehicle is considered to be empty of liquid fuel when the liquid fuel tank has been drained and the vehicle cannot be operated due to a lack of fuel. Vehicle components such as fuel lines, fuel filters and injectors do not need to be cleaned, drained or purged to be considered empty of liquid fuels. In addition, the liquid fuel tank does not need to be cleaned or purged.

**NOTE 2:** A vehicle is considered to be empty of gaseous fuels when the gaseous fuel tanks are empty of liquid (for liquefied gases), the positive pressure in the tanks does not exceed 2 bar and the fuel shut-off or isolation valve is closed and secured.

- (b) Damaged or defective vehicles, including vehicles with missing parts, may be carried as specified in (a). When a damaged vehicle is equipped with one or more lithium batteries and it may be established that the batteries do not fall under the definition of damaged batteries according to special provision 376, either by verification of the batteries, or because the damage is concerning another part of the vehicle, the damaged vehicle may be carried as specified in (a). In any other case, notwithstanding special provision 376, the vehicle may be carried as specified in (a), as long as it is not possible to take the battery out of it under appropriate safety conditions..”

### **Proposal 5**

Introduce a new special provision into Chapter 3.3, as follows:

**“6YY** Non-road mobile machinery which is carried as a load, containing fuel destined for their propulsion or the operation of any of its equipment is not subject to any other requirements of [RID/ADR/ADN], provided the following conditions are met:

The fuel may be carried in fixed fuel tanks connected directly to the vehicle engine and/or equipment. These fixed fuel tanks shall meet the legal requirements;

Where appropriate, this machinery shall be loaded upright and secured against falling.

*NOTE For the definition of non-road mobile machinery, see paragraph 2.7 of the Consolidated Resolution on the Construction of Vehicles (R.E.3) (United Nations document ECE/TRANS/WP.29/78/Rev.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).”*

### **Proposal 6.**

Consequential amendments:

- 1) Delete 1.1.3.2 b)
- 2) Delete 1.1.3.3 b) and c)
- 3) Delete the final note in 2.2.9.1.7
- 4) For all entries to which SP 363 is currently assigned, delete 363 in column (6) as proposed in ECE/TRANS/WP.15/AC.1/2015/23/Add.1, page 11.
- 5) modify special provision 356 as follows:

**“356** Metal hydride storage systems shall be approved by the competent authority of the country of manufacture before acceptance for carriage. The transport document shall include an indication that the package was approved by the competent authority of the country of manufacture<sup>1</sup> or a copy of the competent authority of the country of manufacture approval shall accompany each consignment.

1 If the country of manufacture is not a Contracting Party to ADR, the approval shall be recognized by the competent authority of a Contracting Party to ADR.”

## **Justification**

Clarification of the meaning of the text, and improved safety and inter-modal harmonisation.

## Annex 1

### Resulting amendments to Table A

(1)	(2)	(3a )	(3b )	(4 )	(5 )	(6 )	(7a )	(7b )	(8 )	(9a )	(9b )	(10 )	(11 )	(12 )	(13 )	(14 )	(15 )	(16 )	(17 )	(18 )	(19 )	(20 )
3166	VEHICLE, FLAMMABLE GAS POWERED or VEHICLE, FLAMMABLE LIQUID POWERED or VEHICLE, FUEL CELL, FLAMMABLE GAS POWERED or VEHICLE, FUEL CELL, FLAMMABLE LIQUID POWERED	9	M1 1			312 385 6X X	0	E0														
3171	BATTERY POWERED VEHICLE OR BATTERY POWERED EQUIPMENT	9	M1 1			240 6X X	0	E0														
3528	ENGINE, INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED or ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED or MACHINERY, INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED or MACHINERY, FUEL CELL, FLAMMABLE LIQUID POWERED	3		3	363 6YY	0	E0	P00 5														

(1)	(2)	(3a )	(3b )	(4 )	(5 )	(6 )	(7a )	(7b )	(8 )	(9a )	(9b )	(10 )	(11 )	(12 )	(13 )	(14 )	(15 )	(16 )	(17 )	(18 )	(19 )	(20 )
3529	ENGINE, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED or ENGINE, FUEL CELL, FLAMMABLE GAS POWERED or MACHINERY, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED or MACHINERY, FUEL CELL, FLAMMABLE GAS POWERED	2		2.1	363	6YY	0	E0	P00 5													
3530	ENGINE, INTERNAL COMBUSTION or MACHINERY, INTERNAL COMBUSTION	9		9	363	6YY	0	E0	P00 5													

## Annex 2

### Carriage of vehicles, engine and machinery - Harmonisation with UN model rules (UNMR)

#### Correspondence Table

Proposal	Origin of the new text proposed	Comments
<b>Proposal 1</b>		
Amend Table A for UN 3166 and 3171	UN Model Rules (UNMR)	<p>Following the options decided by the joint meeting and the ad hoc harmonization WG to deal with these issues in a special provision (see ECE/TRANS/WP.15/AC.1/134 para. 27, ECE/TRANS/WP.15/AC.1/136 para. 33 and ECE/TRANS/WP.15/AC.1/2015/23 para. 11 and 14) requires to introduce these entries to which the special provisions are assigned</p> <p>These entries remain exempted from RID ADR as mentioned in SP 123 in the UNMR but this exemption is stated in a special provision (see SP 6XX below). This exemption is granted under the same conditions that are currently stated in 1.1.3.</p> <p>The introduction of definitions currently in SP 240, 312 and 385 that would not otherwise appear in RID ADR ADN allows to define their scope more precisely.</p>
Add the three new entries UN 3528, 3529 and 3530	Following proposition by ad hoc WG (see document ECE/TRANS/WP.15/AC/2015/23/Add.1)	Implementation of the UNMR
<b>Proposal 2</b>		
Introduce SP 240 and 312 and 385 of the UN recommendations into Chapter 3.3. of RID/ADR	19th revised edition of UNMR, except for adequate numbering of reference to chapter 2.9  SP 240 is equivalent to present 2nd	<p>SP 240 and 312 provide the adequate definitions for the purpose of the requirement applicable to these vehicles in the context of their carriage.</p> <p>Although there are definitions related to vehicles in other parts of RID/ADR/ADN (1.2.1.), they are not</p>

	<p>NOTE of present 2.2.9.1.7</p> <p>Besides that some of these definitions are already present in the current text of RID/ADR/ADN in a note to 2.2.9.1.7. We believe that it is rather inconsistent to include definition of vehicles in a chapter dealing with classification for Class 9 articles.</p> <p>SP 380 of UNMR is not included on purpose, because it does not contain definitions but requirements related to proper shipping name which will never be used in RID/ADR/ADN because of the general exemption in SP 6XX.</p> <p>It should be noted in addition that the UN sub-committee has clarified the situation of lithium batteries in these special provisions. For <u>vehicles carried as a load</u> the situation in RID/ADR/ADN is not fundamentally different from the multi-modal situation. We propose to keep this requirement that has been widely supported in the UN sub-committee including by RAD/ADR contracting parties.</p> <p>Work in the UN sub committee battery WG has shown that the test requirements fro vehicle safety different from the ones concerning transport and do not cover transport safety (transport test are more demanding).</p> <p>Furthermore it seem obvious that a battery before being installed in a vehicle has to be transported separately and will therefore automatically be in conformity with design type testing. Beside the safety issues if we give the impression that batteries that are not manufactured in conformity with a tested design type how will it be possible to carry these batteries for maintenance or recycling. This provision in the special provision will make sure that vehicles manufacturers will equip their products with conforming batteries and facilitate the work of downstream operators because it will be a general practice that all batteries will be conforming.</p> <p>How ever the special provisions provide room for the exemptions in SP310 and 376. And enough flexibility were necessary.</p>	
<b>Proposal 3</b>		

Read SP 363 as drafted in the UNMR, with some minor changes (only the changes are listed in this table)	Following proposition by ad hoc WG (see document ECE/TRANS/WP.15/AC/2015/23/Add.1)	Alignment with UNMR
<p><b>"363</b> a) This entry applies to engines or machinery, powered by fuels classified as dangerous goods via internal combustion systems or fuel cells (e.g. combustion engines, generators, compressors, turbines, heating units, etc.), <u>in quantities above those specified in column (7a) of Table A of Chapter 3.2, except those which are assigned to UN No. 3166 or their equipments mentioned in special provision 6XX (a).</u></p>	<p>(a): same scope as UN model rule version, some minor modifications,</p>	<p>(a) UN No 3363 is not mentioned because not defined in RID/ADR/ADN it is replace by a reference to limited quantities values taken from SP 301 of UNMR. The current reference to 1.1.3.3 is replaced by a reference to SP 6XX (a). This allows not to assign engines and fuels powering a refrigeration unit operating during carriage for instance to the three new UN entries (the same way they are now exempted from assignment to entries corresponding to the fuels).</p>
(g) (vi)		
<p><u>Option 1:</u></p> <p>"(vi) A transport document in accordance with 5.4 is required, except for UN No. 3528 and UN No. 3530, where a transport document is only required when the engine or machinery contains more than 60 l of liquid fuels"</p>	<p>(g) (vi): 3 options are proposed to discussion for documentation.</p>	<p>(g) (vi) The proposal provides three options because the existing text already deviates from the UMMR. In addition new requirements have to be decided for gaseous fuels not covered by the current SP 363</p>
<p><u>Option 2:</u></p> <p>"(vi) A transport document in accordance with 5.4 is required, except for UN No. 3528 and UN No. 3530, where a transport document is only required when the engine or machinery contains more than 1000 l of liquid fuels."</p>		<p>In option 2 and 3 the current 1500 l limit has been changed into 1000 l to be in line with other parts of UNMR text.</p>
<p><u>Option 3:</u></p> <p>"(vi) A transport</p>		<p><u>Option 1 :</u> UNMR text</p> <p><u>Option 2 :</u> only liquid fuel powered machinery below 1000 l of fuel exempted from transport document. In line with current RID/ADR/ADN for liquid fuels but with UNMR for gases</p> <p><u>Option 3 :</u> Both liquid fuel and gas powered machinery below 1000 l exempted from transport document. Situation similar to current RID/ADR/ADN for both</p>

<p>document in accordance with 5.4 is required only when the engine or machinery contains more than 1000 l of liquid fuels, for UN No 3528 and UN No 3530, or has a water capacity of more than 1000 l, for UN No 3529."</p>		<p>liquid and gaseous fuels.</p> <p>Additional statement "Transport in accordance with SP 363" from UNMR version not included in our proposition, since it is explicitly stated in new 5.4.1.1.21. (see ECE/TRANS/WP.15/AC.1/2015/23/Add.1)</p>
<p><b>Proposal 4</b></p> <p>Introduce a new <b>SP 6XX</b></p> <p>"<b>6XX</b> (a) Vehicles assigned to UN 3166 or UN No 3171 in conformity with special provisions 240, 312 and 385, including trailers, as well as any dangerous goods they contain that are necessary for their operation or the operation of their equipment, when carried as a load, are not subject to any other provisions of [RID/ADR/ADN], provided the following conditions are met:</p> <p>(a)(i) For liquid fuels, any fuel cocks between the engine or equipment and the fuel tank shall be closed during carriage unless it is essential for the equipment to remain operational. Where appropriate, the vehicles or other means of conveyance shall be loaded upright and secured against falling;</p> <p>(ii) For gaseous fuels, the fuel cock between the gas tank and engine shall be closed and the electric contact open.</p> <p>(iii) Metal hydride storage systems shall be approved by the competent authority of the country of manufacture, if the country of manufacture is not a contracting party to RID/ADR/ADN the approval shall be recognized by the competent authority of a contracting party to RID/ADR/ADN</p>	<p>(a) (i) : equivalent to present 1.1.3.3 b)</p> <p>(a) (ii) : equivalent to present 1.1.3.2 (b)</p>	<p>(a) (i) and (a) (ii) simply reflect the current conditions of exemption for vehicles, when carried as a load, related to liquid or gaseous fuels.</p>

<p>(a) (iv) The provisions of (i) and (ii) do not apply to vehicles which are empty of liquid or gaseous fuels.</p> <p><b>NOTE 1:</b> A vehicle is considered to be empty of liquid fuel when the liquid fuel tank has been drained and the vehicle cannot be operated due to a lack of fuel. Vehicle components such as fuel lines, fuel filters and injectors do not need to be cleaned, drained or purged to be considered empty of liquid fuels. In addition, the liquid fuel tank does not need to be cleaned or purged.</p> <p><b>NOTE 2:</b> A vehicle is considered to be empty of gaseous fuels when the gaseous fuel tanks are empty of liquid (for liquefied gases), the positive pressure in the tanks does not exceed 2 bar and the fuel shut-off or isolation valve is closed and secured.</p> <p>(b) Damaged or defective vehicles, including vehicles with missing parts, may be carried as specified in (a). When a damaged vehicle is equipped with one or more lithium batteries and it may be established that the batteries do not fall under the definition of damaged batteries according to special provision 376, either by verification of</p>	<p>(a) (iii) :Adapted from present SP 356</p> <p>(a) (iv) new text</p>	<p>(a)(iii) Current 1.1.3.7 grants exemption for vehicles using metal hydride storage systems during a transport operation, or for such storage systems used for operating any of their equipments.</p> <p>This is not the case for vehicles or equipments when carried as a load. Under SP 356 they are, in the current edition of RID/ADR/ADN, subject to transport document certifying in addition to the traditional information the competent authority approval. It seems that these requirements make the use of such vehicles impossible and that the same principles as for other fuels should apply.</p> <p>(a)(iv) new text in line with new SP363 (b) proposed for introduction in RID/ADR/ADN</p>
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<p>the batteries, or because the damage is concerning another part of the vehicle, the damaged vehicle may be carried as specified in (a). In any other case, notwithstanding special provision 376, the vehicle may be carried as specified in (a), as long as it is not possible to take the battery out of it under appropriate safety conditions.</p>	<p>(b): new provisions dealing with damaged or defective vehicles, with particular emphasis on the case of defective lithium batteries (see SP 376)</p>	<p>(b) It seems necessary to state that a damaged vehicle falls under the exemptions defined in the is special provision, even in the case when it suffered such damage (loss of some of its parts or severe deformation for instance) that it can no more perform the function it was designed for.</p> <p>Furthermore for vehicle equipped with a lithium battery, in some cases after the damage when the battery may be a candidate for transport under SP 376. it seemed preferable to clarify that the exemption for vehicles takes precedence over SP 376, otherwise transport of these damaged vehicles may become problematic as the correlation with special provision 376 is not clear in terms of what takes precedence.</p>
<p><b>Proposal 5</b></p> <p><b>Introduce a new SP 6YY</b></p> <p><b>"6YY</b> Non-road mobile machinery which is carried as a load, containing fuel destined for their propulsion or the operation of any of its equipment is not subject to any other requirements of [RID/ADR/ADN], provided the following conditions are met:</p> <p>The fuel may be carried in fixed fuel tanks connected directly to the vehicle engine and/or equipment. These fixed fuel tanks shall meet the legal requirements;</p> <p>Where appropriate, this machinery</p>	<p>Text equivalent to present 1.1.3.3. c) and end of page note on non road mobile machinery</p>	<p>Following the principle that items carried as a load shall be no more exempted under 1.1.3 but in a special provision in chapter 3.3. it is necessary to move the current text from 1.1.3.3. c) in a new special provision.</p> <p>This issue is not directly related to the carriage of vehicles but if nothing is said non road mobile machinery would naturally fall under one of the three new entries concerning machinery. This would lead to a substantial change in a recently adopted exemption</p>

<p>shall be loaded upright and secured against falling.</p> <p><i>NOTE For the definition of non-road mobile machinery, see paragraph 2.7 of the Consolidated Resolution on the Construction of Vehicles (R.E.3) (United Nations document ECE/TRANS/WP.29/78/Rev.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).</i></p>		
<p><b>Proposal 6.</b></p> <p>Consequential amendments:</p> <p>1) Delete 1.1.3.2 b)</p> <p>2) Delete 1.1.3.3 b) and c)</p> <p>3) Delete the final note in 2.2.9.1.7</p> <p>4) For all entries to which SP 363 is currently assigned, delete 363 in column (6) as proposed in ECE/TRANS/WP.15/AC.1/2015/23/A dd.1, page 11.</p> <p>5) modify special provision 356 as follows:</p> <p><b>“356</b> Metal hydride storage systems shall be approved by the competent</p>		<p>Proposals 1) to 4) are deletion of text that has been moved to more appropriate places.</p> <p>Proposal 5) keeps SP 356 assigned only to UN No 3468 with a text that does not mention system installed in vehicles any more. These are now covered by</p>

authority of the country of manufacture <sup>1</sup> before acceptance for carriage. The transport document shall include an indication that the package was approved by the competent authority of the country of manufacture or a copy of the competent authority of the country of manufacture approval shall accompany each consignment.		exemptions in the new SP6XX.
<sup>1</sup> If the country of manufacture is not a Contracting Party to ADR, the approval shall be recognized by the competent authority of a Contracting Party to ADR.”		