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Item 6(c) of the provisional agenda

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

Security provisions for explosives

Note by the Secretariat

The Secretariat reproduces hereafter document 2012/2 submitted by Ireland for the next session of WP.15 and which may be of interest to the Joint Meeting.

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Economic Commission for Europe**Inland Transport Committee****Working Party on the Transport of Dangerous Goods****Ninety-second session**

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Item 6 (c) of the provisional agenda

Proposals for amendments to Annexes A and B of ADR:**new proposals****Security Provisions Relating to Certain Explosive Articles****Transmitted by the government of Ireland¹***Summary*

Executive summary: To provide a textual clarification for the applicability of security provisions relating to certain explosive articles in the List of high consequence dangerous goods.

Action to be taken: To propose and present clarification for ADR 2013.
Amend the exemptions related to quantities carried per transport unit in respect of security requirements for certain explosives articles.

Related documents: ST/SG/AC.10/C.3/56 (Report of the Sub-Committee of Experts on the Transport of Dangerous Goods on its twenty-eighth session - December 2005);
ST/SC/AC.10/C.3/2005/39 submitted at the twenty-eighth session of the Sub-Committee of Experts on the Transport of Dangerous Goods;
ECE/TRANS/WP.15/197 (Report of the Working Party on its eighty-fourth session);
Informal document: INF.14 (United Kingdom) presented at the eighty-fourth session of the Working Party;
ECE/TRANS/WP.15/AC.1/2007/30/Add.1 (Report of the Ad Hoc Working Group on Harmonisation of RID/ADR/ADN with the UN Recommendations on the Transport of Dangerous Goods).

¹ The present document is submitted in accordance with paragraph 1(c) of the terms of reference of the Working Party, as contained in document ECE/TRANS/WP.15/190/Add.1, which provides a mandate to “Develop and update the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)”.

Introduction

1. At its eighty-fourth session, the Working Party adopted the proposal by the United Kingdom to make the security provisions of Chapter 1.10 applicable to all of the articles belonging to UN Nos. 0104, 0237, 0255, 0267, 0289, 0361, 0365, 0366, 0440, 0441, 0455, 0456 and 0500 regardless of the quantity carried.

2. However these same articles can be classified under different UN Nos. depending on how they are packaged, and by virtue of the application of 1.10.4 and 1.1.3.6.2 the security provisions of Chapter 1.10 do not apply to these articles when they do not exceed the quantities referred to in 1.1.3.6.3. The articles of concern are:

<i>UN No</i>	<i>Proper Shipping Name</i>	<i>Alternative UN Nos.</i>
0029	Detonators non electric	0267, 0455
0030	Detonators electric	0255, 0456
0059	Charges shaped without detonator	0439, 0440, 0441
0065	Cord detonating flexible	0289
0073	Detonators for ammunition	0364, 0365, 0366
0288	Charges shaped flexible linear	0237
0290	Cord detonating mild effect	0104
0360	Detonators assemblies non electric	0361, 0500
0364	Detonators for ammunition	0073, 0365, 0366
0439	Charges shaped without detonator	0059, 0440, 0441

3. This anomaly needs to be addressed in order to rectify the situation where large quantities of security sensitive items which are highly attractive to terrorists and criminals alike can be transported without application of any security provisions.

Background

4. In December 2005 the United Nations Sub-Committee of Experts accepted the principle that assignment to a hazard division was dependent on a safety standpoint and was independent of security considerations. It thus adopted the proposal of the United Kingdom (ST/SG/AC.10/C.3/2005/39) that due to security concerns certain explosive articles of Division 1.4 (UN Nos. 0104, 0237, 0255, 0267, 0289, 0361, 0365, 0366, 0440, 0441, 0455, 0456 and 0500) should be included as high consequence dangerous goods and Table 1.4.1 of the Model Regulations was amended accordingly.

5. Subsequently in May 2008 the Working Party adopted the proposal by the United Kingdom to make the security provisions of Chapter 1.10 applicable to articles

belonging to those same UN Nos. and 1.1.3.6.2 and 1.10.4 of ADR were amended accordingly (ECE/TRANS/WP.15/195/Add.1). This addressed the security concerns relating to those particular UN Nos. but as can be seen here the same articles may be classified as different UN Nos. depending on how they are packaged.

6. High consequence dangerous goods have been defined in Chapter 1.10 as those “which have the potential for misuse in a terrorist incident and which may, as a result, produce serious consequences such as mass casualties or mass destruction”. As a consequence of the above decisions the list now includes all explosives classified as Division 1.1, 1.2, 1.5, those classified as Division 1.3 in compatibility Group C and also UN Nos. 0104, 0237, 0255, 0267, 0289, 0361, 0365, 0366, 0440, 0441, 0455, 0456 and 0500 of Division 1.4.

7. Designation of explosives as high consequence dangerous goods means that the security provisions in Chapter 1.10 apply whereby carriers, consignors and others engaged in the transport of these dangerous goods are required to adopt, implement and comply with a security plan that addresses at least the elements specified in 1.10.3.2.

8. Certain explosives articles may be classified as Division 1.1 or 1.2 and the same article in different packaging arrangements may be classified as Division 1.4. This is common practice for safety reasons as the explosive articles when packaged as Division 1.4 “present only a slight risk of explosion in the event of ignition or initiation during carriage” while if packaged as Division 1.1 they “have a mass explosion hazard which affects almost the entire load instantaneously” or as Division 1.2 they “have a projection hazard but not a mass explosion hazard”.

For example an electric detonator can be packaged such that it is classified as either:

- UN No. 0030 Division 1.1B; or
- UN No. 0255 Division 1.4; or
- UN No. 0456 Division 1.4S.

9. The explosive articles of principal concern are detonators, detonator assemblies of all types and certain other articles. These articles are security sensitive items which are highly attractive to criminals and terrorists alike as they are an essential component of improvised explosive devices (IEDs) and are extremely difficult to manufacture or acquire illicitly.

Current situation and problem defined

10. An anomaly exists in the ADR as the applicability of 1.10.4 (except for UN Nos. 0104, 0237, 0255, 0267, 0289, 0361, 0365, 0366, 0440, 0441, 0455, 0456 and 0500) is dependant on the quantities being carried on the transport unit exceeding the limits specified in 1.1.3.6.3. If the quantity being carried is below this limit for the particular transport category then by application of 1.1.3.6.2 the transport can proceed without application of certain provisions, including the security provisions of Chapter 1.10. All of the articles of concern (UN Nos. 0029, 0030, 0059, 0065, 0073, 0288, 0290, 0360, 0364, 0439) are Transport Category 1 and so there can be up to 20 kg net mass of explosive substance on the transport unit without any security provisions applying.

11. As these items typically contain only small amounts of very sensitive explosive material, normally for detonators less than 1g of explosive, then up to 20 000

individual articles may be transported without any security provisions applying. The consequences of a transport unit loaded with these articles falling into the hands of terrorists or criminals would be catastrophic as each of the 20 000 articles could be used as the means of initiation in 20 000 separate improvised explosive devices (IEDs).

12. Below is a list of the explosive articles concerned with the various UN Nos. that can be assigned to that particular explosive article and at what limits Chapter 1.10 applies.

<i>Proper Shipping Name (UN No. of concern)</i>	<i>UN No.</i>	<i>Hazard Classification</i>	<i>Transport Category</i>	<i>Chapter 1.10 Apply</i>
Detonators, non-electric for blasting (UN No. 0029)	0029	1.1B	1	Only when > 20 kg NEC* on transport unit (approx 20 000 units)
	0267	1.4B	2	Yes - Always
	0455	1.4S	4	Yes - Always
Detonators, electric for blasting (UN No. 0030)	0030	1.1B	1	Only when > 20 kg NEC* on transport unit (approx 20 000 units)
	0255	1.4B	2	Yes – Always
	0456	1.4S	4	Yes – Always
Charges, shaped without detonator (UN Nos. 0059 and 0439)	0059	1.1D	1	Only when > 20 kg NEC* on transport unit
	0439	1.2D	1	Only when > 20 kg NEC* on transport unit
	0440	1.4D	2	Yes – Always
	0441	1.4S	4	Yes – Always
Cord detonating flexible (UN No. 0065)	0065	1.1D	1	Only when > 20 kg NEC* on transport unit
	0289	1.4D	2	Yes - Always

Detonators, for ammunition (UN Nos. 0073 and 0364)	0073	1.1B	1	Only when > 20 kg NEC* on transport unit (approx 20 000 units)
	0364	1.2B	1	Only when > 20 kg NEC* on transport unit (approx 20 000 units)
	0365	1.4B	2	Yes – Always
	0366	1.4S	4	Yes – Always
Charges, shaped, flexible, linear (UN No. 0288)	0288	1.1D	1	Only when > 20 kg NEC* on transport unit
	0237	1.4D	2	Yes - Always
Cord (Fuse), detonating, mild effect, metal clad (UN No. 0290)	0290	1.1D	1	Only when > 20 kg NEC* on transport unit
	0104	1.4D	2	Yes - Always
Detonators assemblies, non-electric for blasting (UN No. 0360)	0360	1.1B	1	Only when > 20 kg NEC* on transport unit (approx 20 000 units)
	0361	1.4B	2	Yes – Always
	0500	1.4S	4	Yes – Always

* NEC is the net explosive content

13. This list clearly demonstrates that for exactly the same explosive article the applicability of the security provisions of Chapter 1.10 is dependent on how the article

is packaged and classified. Using the example of the electric detonator again, we have the situation where if these are packaged as UN No. 0255, Division 1.4B or UN No. 0456, Division 1.4S, then the security provisions must be applied regardless of the quantity, while if it is packaged as UN No. 0030, Division 1.1B then the security provisions only apply if there is more than 20 kg (approx 20 000 separate articles) on the transport unit.

14. This situation needs to be addressed urgently so that the security provisions apply unilaterally to these security sensitive explosive articles regardless of their UN No. and classification (which only relates to safety).

Proposal

15. Amend 1.1.3.6.2 and 1.10.4 so that there is no exemption from the security provisions of Chapter 1.10 for UN Nos. 0029, 0030, 0059, 0065, 0073, 0288, 0290, 0360, 0364, 0439 even if the quantity carried is less than the quantity specified in 1.1.3.6.3.

Amend the first indent in 1.1.3.6.2 to read as follows:

“- Chapter 1.10 except for Class 1 explosives of ~~Division 1.4~~ of UN Nos. **0029, 0030, 0059, 0065, 0073**, 0104, 0237, 0255, 0267, **0288**, 0289, **0290**, 0361, **0360, 0364**, 0365, 0366, **0439**, 0440, 0441, 0455, 0456 and 0500;”.

Amend the first sentence of 1.10.4 as follows:

“In accordance with the provisions of 1.1.3.6, the requirements of 1.10.1, 1.10.2, 1.10.3 and 8.1.2.1 (d) do not apply when the quantities carried in packages on a transport unit do not exceed those referred to in 1.1.3.6.3, except for UN Nos. **0029, 0030, 0059, 0065, 0073**, 0104, 0237, 0255, 0267, **0288**, 0289, **0290**, 0361, **0360, 0364**, 0365, 0366, **0439**, 0440, 0441, 0455, 0456 and 0500 (see first indent of 1.1.3.6.2).”.