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## Economic Commission for Europe

### Inland Transport Committee

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

100th session

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Item 4 of the provisional agenda

Interpretation of ADR

12 April 2016

### The meaning of “no danger” in the note to 7.5.2.2 in ADR

Transmitted by the Government of Sweden

#### Introduction

1. Several transports of explosives are carried out with both detonators and actual blasting agent on the same road vehicle. Sub-section 7.5.2.2 in ADR states that packages containing substances or articles of Class 1, bearing a label conforming to models Nos. 1, 1.4, 1.5 or 1.6 which are assigned to different compatibility groups shall not be loaded together in the same vehicle or container, unless mixed loading is permitted in accordance with the Table in the same paragraph.
2. However, footnote a) to this table permits packages containing articles of compatibility group B and those containing substances or articles of compatibility group D to be loaded together on one vehicle provided they are effectively segregated. The footnote also states that there shall be *no danger of transmission of detonation* from the articles of compatibility group B to the substances or articles of compatibility group D. Segregation shall be achieved by the use of separate compartments or by placing one of the two types of explosive in a special containment system.
3. These segregation methods shall be approved by the competent authority. However, to segregate the articles “such that there is *no danger* of transmission of detonation” is extremely hard to achieve.
4. Tests made in Sweden on different containment systems shows that there is not practicable to construct and use such a 100 % safe system in a load compartment on one road vehicle. It will take too much space and work with the load compartment to establish completely safe conditions before transport.
5. The risk of detonators packed according to ADR being initiated during transport seems close to non-existent. However, during a fire the risk is much higher even with an insulated containment system. Especially detonators with delayed elements can cause unwanted domino effects that will transfer a detonation to substances or articles of compatibility group D.
6. Some countries only allow transport of explosives bearing a label conforming to models Nos. 1, 1.4, 1.5 or 1.6 when different compatibility groups are separated on different vehicles.
7. ADR contains absolute criteria in several places. The main issue for the competent authority in Sweden is how to interpret the wording “no danger”. Here it is not a handling provision that should be fulfilled by a carrier but an approval from a competent authority to allow carriage of explosives in different countries. We interpret the word “danger” as the

risk (probability) for an unwanted incident to occur. Sweden would like to know how other countries look on this requirement when issuing approvals. Do you allow a small risk of transmission of a detonation from articles of compatibility group B to substances or articles of compatibility group D, or do you require that a 100% reduction of the risk should be achieved.

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