

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods

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VEHICLES CARRYING MIXED LOADS OF EXPLOSIVES (MULTIPLE BLEND TRUCKS)

Transmitted by the Government of Germany

1. Introduction

In Germany and other ADR member states, certain vehicles are used for the carriage of elementary substances or intermediate products in order to perform on-site mixing of explosives (e.g. in a stone quarry). This has the advantage that the chemical composition and physical properties of the explosives can be adapted to the conditions existing on site.

Currently, there are no ADR regulations with regard to such vehicles. In the ADR member states concerned, different standards are applied, which have been laid down in national exemptions, or the vehicles are only subject to national explosives legislation. However, there is an increasing interest in using such vehicles for international transport operations, too.

Therefore, Germany considers it is necessary to include regulations relating to such vehicles in ADR.

2. Description of the vehicles

Vehicles carrying mixed loads of explosives are used for the carriage of various substances, depending on the type of explosives to be manufactured. Such substances are ammonium nitrate (class 5.1, UN 1942), ammonium nitrate emulsion (class 5.1, UN 3375), sodium nitrite (class 6.1, UN 3287), acetic acid (class 8, UN 2790) and diesel fuel (class 3, UN 1202) as well as goods that are not subject to the provisions of ADR. In some cases, the preassembled explosives and detonators may be carried in the same vehicle.

Such goods are carried in containers of different sizes, depending on the quantity needed. For example, ammonium nitrate is carried in quantities up to 15 m³, ammonium nitrate emulsion up to 7 m³ and diesel fuel up to 900 litres. Sodium nitrite and acetic acid are carried in maximum quantities of 150 litres. A list of substances and quantities accepted for carriage in vehicles containing mixed loads of explosives in Germany can be found in the Annex to this document. In this context, it would be interesting to know whether there are other substances that are carried as mixed loads in other ADR Contracting Parties.

In Germany, the preassembled explosives (class 1) that are used for detonation have to be carried in special compartments which are of the same quality as load compartments of EX/III vehicles.

3. Description of the problem

The description of the vehicles already shows that there are some problems that should be clarified. These include:

- questions concerning the substances accepted for carriage in such vehicles;
- questions concerning the containments to be used;
- questions with regard to marking since some of the receptacles used are relatively small (e.g. drums or jerricans) and, therefore, the placarding and orange-coloured plate marking is difficult;
- questions with regard to mixed loading since, in accordance with sub-section 7.5.2.1, the mixed loading between substances and articles of class 1 and goods of other classes is prohibited - with some few exceptions;
- questions concerning the details to be entered in the transport document;
- questions relating to the definitions.

4. Approaches for solution

The first approach to a solution may be the development of a special provision which is assigned to the substances listed in the Annex, and which describes the derogations from the standard set of regulations. It may be a possibility to provide for the use of bulk containers and packagings but to permit a connection or piping during transport subject to certain conditions (closures, protection from mechanical impacts etc.) that need to be worked out. A similar approach could be taken in respect of marking. The standards in chapters 5.2 and 5.3 would, as a rule, be applied but derogations could be permitted. In addition, a vehicle type should be defined. The issues listed under number 3 also need to be addressed.

A solution with regard to the question of mixed loading between explosives and goods of other classes may be the limitation of the total quantity of dangerous goods carried and the fulfilment of the requirements for EX/III vehicles.

5. Proposal

Since the issue of vehicles carrying mixed loads of explosives is complex and approaches for solution have not yet been worked out in detail, Germany proposes to deal with these matters in a working group. Only then should a formal consultation take place in WP.15.

This working group could meet, on the invitation of Germany, in **Bonn or Dresden on 19 and 20 September 2006**. In the framework of the meeting, one or more vehicles of this type may be made available for inspection. The use of English as a working language is proposed.

If WP.15 supports this proposal, Germany will soon send formal invitations to the ADR Contracting Parties.

Annex

Class	Name and description	UN no	Classification code	Max. mass / volume	Vehicle
1	EXPLOSIVE, BLASTING, TYPE A	0081	1.1 D	1,000 kg NEC	EX III
	EXPLOSIVE, BLASTING, TYPE B	0082	1.1 D		
	EXPLOSIVE, BLASTING, TYPE E	0241	1.1 D		
	BOOSTERS without detonator	0042	1.1 D		
	CORD, DETONATING, flexible	0065	1.1 D		
	DETONATORS, ELECTRIC for blasting	0255	1.4 B	40 kg NEC	
	DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting	0360	1.1 B		
DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting	0500	1.4 S			
3	DIESEL FUEL	1202	3	900 litres	FL<= 61°C < AT

Class	Name and description	UN no	Classification code	Max. mass / volume	Vehicle
5	AMMONIUM NITRATE	1942	5.1	15 m ³	AT
	AMMONIUM NITRATE EMULSION or SUSPENSION or GEL, solid or liquid	3375	5.1	7 m ³	
6.1	TOXIC LIQUID, INORGANIC, N.O.S. (Sodium nitrite)	3287	6.1	150 litres	AT
8	ACETIC ACID, SOLUTION, not less than 50% but not more than 80% acid, by mass	2790	8	150 litres	AT
