

---

**Economic Commission for Europe****Inland Transport Committee****Working Party on the Transport of Dangerous Goods**

21 April 2010

**Eighty-eighth session**

Geneva, 3–7 May 2010

Item 6 (c) of the provisional agenda

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

---

**Comments on document ECE/TRANS/WP.15/2010/11  
(Sweden) 5.4.1.1.6.2.1****Transmitted by the Government of Switzerland**

1. The Swedish approach is not based on the risks but only on an apparent logic of the system. Because some (only some not all of them!) carriages of empty, uncleaned packagings can be exempted of the orange plate marking, they could be exempted of the information of the tunnel restriction code in the transport document also in the cases where the orange plate are obligatory.

2. A rudimentary risk assessment shows that the ADR is right when submitting loads of empty, uncleaned packagings to all the rules of ADR when carried together with filled packagings in quantities above the limits laid down in 1.1.3.6. For example in ADR the carriage of empty, uncleaned packagings of flammable liquids of class 3, Packing group I of UN 2059 or 3379 is considered to be enough dangerous that all rules of ADR have to be applied by loads together with other dangerous goods above the quantities laid down in 1.1.3.6. We wonder why this general rule based on a logical risk assessment will not be needed particularly in tunnels. Are tunnels so safe that the same general safety measures outside the tunnels are no more necessary? Looking at the two examples UN 2059 and 3379, desensitized explosive liquids of transport category 1 and with tunnel restriction code B, we wonder if the lack of information about the tunnel restriction code will help anybody to guarantee a safe crossing of tunnels. We could even say that the danger is even bigger when these substances are carried empty, uncleaned as when the packages are carried full because the evaporation and subsequent concentration of the explosive substance goes quicker in empty, uncleaned packages and can more easily produce explosions. We have no doubt that such risks have to be considered before crossing tunnels and for these cases the information about tunnel restriction codes is essential, but not only for those. The same problems could be encountered with many other substances. Considering only those of transport category 1 we can observe the following cases, all of the same transport category 1 and tunnel restriction code (B) or (D):

- Substances of class 4.1 (42 entries), desensitized explosives in solutions, many of them of tunnel category B,
- Peroxides of class 5.1 (14 entries),
- Flammable toxics and/or corrosives of class 6.1, PG I (47 entries),
- Corrosives and toxics of class 8, PG I,
- What to say about the 83 entries of gases of class 2, all of them toxic, corrosives or flammable, of transport category 1 and tunnel restriction (D). Who is in the position

to determine when a gas cylinder is empty or not? Depending on the temperature the gas could still give some pressure in the cylinder. In winter in the middle of long tunnels in Switzerland temperatures of about 30°C are not an exception. This even if ambient temperatures outside the tunnel are well below 0 °C. In such case the knowledge of the tunnel restriction code and a right tunnel code classification of the load is imperative in order to guarantee the safety in tunnels.

3. The same can be said for flammable liquids or desensitized explosives where the evaporation is a special problem in tunnels. Considering the particular temperature conditions in tunnels the presence of a big vapour phase is not in favour to allow the passage without knowledge of the exact danger of the substances. The evaporation which happens in an empty, uncleaned package due to the enhancement of temperature in the tunnel increases the risks in tunnels compared to the situation outside the tunnel where the temperatures are much lower.

4. For these reasons, it is appropriate not to neglect the dangers of empty, uncleaned packagings. The provisions in ADR take care of this evaluation of the risk with the result that the ADR considers that even with empty, uncleaned packagings, a load which exceeds the quantities of 1.1.3.6.3 represents such a danger that all the set of rules have to apply, including those of information in transport document. Sweden however considers these risks as apparently negligible in tunnels and proposes that only for the case of tunnels this risk evaluation is not right. This proposal of Sweden doesn't explain what risk assessment considerations can justify considering the approach of the ADR as not correct for tunnels and why the dangers in tunnels should be less important as in open roads.

5. Moreover the proposal of Sweden only applies in case that the load is carried under the limits of 1.1.3.6 which is already solved by the rules of ADR. If however the load exceeds the quantities laid down in 1.1.3.6, then the whole load is subject to the whole set of ADR rules, including marking with orange plates. This remains so even if the load contains empty, uncleaned dangerous goods of transport category 4 loaded together with other dangerous goods above the limits of 1.1.3.6. In that case, even without having the information of the tunnel restriction code in the transport document, the vehicle is subject to all ADR rules including orange plate placarding and consequently to the tunnel restrictions. Before allowing crossing a restricted tunnel, the tunnel operator and the control organisms will ask about the information regarding the tunnel restriction code and no passage in tunnel will be allowed without this information. Furthermore the provisions in 8.6.3.2 remain applicable even in absence of the information in transport document. The information in transport document about the tunnel restriction code is not necessary in order to allow or to forbid the crossing of a tunnel but in order to facilitate the decision-making and to avoid delays. So following 8.6.3.2 even without the information about tunnel codes the load has to be evaluated taking into account the most restrictive of the tunnel restriction codes. The lack of information for some carried goods will only delay the consignment until the information about tunnel restriction codes of all dangerous goods loaded is available. The ADR doesn't allow ignoring them when the limits in 1.1.3.6 are exceeded.

6. Another consequence of the Swedish proposal is that dangerous goods of transport category 0 will also not need to have the information about tunnel restriction code in the transport document. What happens normally with a load carrying dangerous goods of transport category 0 in empty, uncleaned packagings? All the rules of ADR apply. With the Swedish proposal it seems that in the tunnels no danger arises for such a load so one can forget the information about tunnel restriction code. This is not the approach of ADR.

7. Furthermore, consequential problems arise if the principle of the choice of the more stringent tunnel category laid down in 8.6.3.2 could be abandoned: Why should this principle remain applicable in the case of the carriage of a package filled with only 1 g (not empty) of substances from transport category 0? Is such case more or less dangerous than

the carriage of empty, uncleaned substances of other transport categories? Is there no limit which should not be surpassed?

8. The limit is given by the ADR today in the way the problem is solved now. No other limits should be proposed without a risk based reasoning.

9. The question raised by Sweden in the document 2010/11 is not only applicable for empty, uncleaned dangerous goods but could also be asked for any dangerous goods of transport category 4: 47 explosive substances of class 1 of classification code 1.4S, 6 entries of class 4.1, 2 from class 4.2, 3 from class 7 and one of class 9.

10. Following the logic of Sweden and the principle that the same risks should be subject to the same rules one could exempt from the information about tunnel codes any dangerous goods of the transport category 4 as well as any dangerous goods carried in quantities not exceeding the quantities of 1.1.3.6. The danger for all these dangerous goods in ADR have until now been considered of the same level as the danger of empty, uncleaned packagings. We hope that the reason why Sweden has omitted to mention other dangerous goods of transport category 4 is probably because it seems evident that loading unlimited quantities of these dangerous goods together with quantities of dangerous goods exceeding the limits of 1.1.3.6 is not acceptable for the safety of the carriage without applying all the ADR rules including documentation. If however the Swedish approach is accepted, it will be possible then to think about a set of new exemptions for other goods and categories. This is because ADR considers that the danger of a full load of empty, uncleaned packagings of transport category 4 represents the same level of danger as the one of less than 20 kg or liter of transport category 1, less of 333 kg or liters of transport category 2 and less than 1000 kg or liters of transport category 3 or a full load of other goods of transport category 4 mentioned above. Following the logic of the document 2010/11, there is no reason not to exempt those other goods from the information regarding the tunnel category. Will it be at the end allowed to carry 19 kg of some dangerous goods of transport category 1 without the information about tunnel restriction code loaded together with for example 2000 l of some substance of transport category 3 because one can consider that the small amount of 19 kg represents the same danger as a full load of empty, uncleaned dangerous goods of transport category 4? This example shows one possible consequence of the logic followed in document 2010/11 which should be avoided.

11. Besides the fact that the existence of the information about tunnel restriction codes helps every intervening party to make the right decision in a short time, one should not forget that this includes also the choices made by the competent authorities and tunnel operators regarding as well the single passage as the assignment of a given tunnel to a given tunnel category. Because it also helps to control the risk in tunnels it helps to assign a lower tunnel category to the tunnel. If however, because of such additional exemptions only for the case of tunnels as the one proposed by Sweden, the ADR renders the safety rules in tunnels less stringent without a risk based analysis, the tunnel operators and competent authorities will not be ready to assign less stringent tunnel categories for their tunnels. The reason is that at least those authorities are supposed to apply risk assessment considerations for the tunnel classification. Such proposals as the one in document 2010/11 do not help to reduce the risks and at the end do not facilitate transports through tunnels.

## Conclusions

12. Without an argument based on risk analysis demonstrating that the risks in tunnels are less important for the case of empty, uncleaned packagings, a proposal like the one of Sweden cannot be adopted.

13. This proposal does not reach its target, which is to avoid the right choice of tunnel category of the load considering the tunnel restriction code of the empty, uncleaned packagings.
  14. The proposal exempts substances of transport category 0 of the information in transport document about the tunnel restriction code.
  15. It renders more difficult the decision-making of every intervening party (consignor, carrier, authorities, tunnel operator, control organs; etc), which has consequences on the rapidity of the consignment.
  16. It will have negative consequences in the assignment of a tunnel category because authorities applying risk assessment based decisions will assign more stringent categories in order to maintain the same level of risks in a given tunnel. This will make transports more difficult in general.
  17. It introduces a logic which could bring more consequential changes in the rules for other dangerous goods and quantities, which will not only complicate the comprehension and applicability of the rules but render the transport less safe also for open roads in general.
-