Summary

Executive summary: The prohibition against transporting Category A infectious substances of UN Nos. 2814 and 2900 in tunnels should be removed for consignments sent in packages, as it hinders the timely transport of analysis samples. For such substances, the risk in tunnels is more or less the same as the risk on the open road. The prohibition is not justified.

Action to be taken: In column (15) of Table A of Chapter 3.6, replace the tunnel restriction “(E)” with “(-)” for the first entries under UN Nos. 2814 and 2900.

1 In accordance with the programme of work of the Inland Transport Committee for 2014–2015 (ECE/TRANS/240, para. 100; ECE/TRANS/2014/23, cluster 9, para. 9.2).
Introduction

1. The epidemic of Ebola haemorrhagic fever has been raging in several countries, and the World Health Organization (WHO) has undertaken to repatriate to Switzerland medical personnel working for United Nations agencies who are infected by the virus and who come from countries whose hospitals cannot provide the same kind of treatment as in Switzerland. This, together with a massive influx of refugees from all over the world, prompted the Swiss health authorities to assess the measures required to prevent Ebola contamination in Switzerland.

2. This assessment identified technical and administrative difficulties attributable to the ADR regulations. An example of a problem that needs to be addressed can be seen in multilateral agreement M281.

3. Substances containing the Ebola virus must be transported under the entry for UN No. 2814, assigned to Category A of Class 6.2. In Switzerland, there are just two centres equipped to carry out analyses of this virus, both located north of the Alps, in Spiez and Geneva. Some hospitals, including the one in Lugano, south of the Alps, are authorized to admit suspected Ebola patients for 72 hours. During this time, samples taken from the patient must be sent over the Alps for analysis. The heavy influx of refugees is mainly concentrated in the southern part of Switzerland. In winter, with the closing of the mountain passes, it becomes unavoidable to send the samples through the Gotthard or San Bernardino tunnels, but this can only be done with a special authorization that must be justified. To respect the 72-hour deadline for deciding how to treat such patients, the administrative procedure — which must be carried out urgently — would require year-round, 24-hour staffing of the office issuing the special authorization. In light of the (hopefully) low number of cases, no administration can maintain staffing around the clock to ensure a timely response. What is more, the authorization involves costs for the hospitals. Such bureaucratic obstacles are apparently disproportionate in the light of the actual risk involved by the carriage of infectious substances in a tunnel.

4. The tunnel restrictions are based on the table in 1.1.3.6.3 of ADR, but at the outset that table was not intended to set limits for the safety of tunnels. It dates back before the introduction of tunnel restrictions and was established to define quantity limits under which a low residual risk would allow those involved in transport to benefit from some easing of the provisions of ADR. For infectious substances, transport category 0, for which no easing is possible for any quantity carried, was justified to ensure the protection of those involved in carriage, specifically the driver. It is indeed important for them to receive additional training and for the guidance regarding signage, instructions and marking to be observed.

5. With few exceptions, WP.15 has generally based its decisions in assigning transport categories on the limits set for limited quantities, under column (7a) of Table A of Chapter 3.2. Since column (7a) sets a value of 0 for substances of UN Nos. 2814 and 2900, transport category 0 was automatically selected for these entries. However, such a value is only meaningful to ensure the direct protection of those taking part in the transport. The value already existed in the regulations prior to the entry into force of the tunnel restrictions, which were added to pre-existing provisions that originally served a different purpose. As the transport category determines the quantity allowed in tunnels subject to restriction, and since the value has been set at 0 for reasons other than safety in tunnels, entries under UN Nos. 2814 and 2900 are never allowed to pass through such tunnels.

6. On the other hand, if we are addressing actual risks in tunnels, the complete prohibition of the carriage of infectious substances of Category A (UN Nos. 2814 and 2900) imposed by transport category 0 is apparently ineffective, as such substances involve the...
same risk whether they are inside or outside a tunnel. For tunnels, the decision was taken to set the value at 0 without any risk analysis to back it up; it is the result of an automatic assignment of transport category 0, which was established for other purposes. There is thus no safety-related reason that justifies the complete prohibition of infectious substances in tunnels. Prior to the definitive entry into force of the tunnel prohibitions under ADR, the regulations in force in Switzerland were based on just such an analysis, and no restrictions were applied to the use of tunnels for the carriage of infectious substances in packages.

7. A look at Table A of Chapter 3.2 shows, however, that the rule cited above has not been followed in all cases. For example, there are 41 entries for which transport category 4 has been assigned. They all have been assigned a value of 0 under column (7a), but they are not subject to any tunnel restrictions. These include 31 explosive substances with classification code 1.4S under Class 1; two solid flammable substances of Class 4.1, PG III; four radioactive entries of Class 7 (UN Nos. 2908 and 2911); and four entries of Class 9 (UN Nos. 3268, 3499, 3508 and 3509).

8. If we consider the risks involved for some of the entries listed above and compare them with the fact that infectious substances involve no greater risk in tunnels than they do on the open road, we can quite rightly wonder whether it would be possible to have another classification for infectious substances in tunnels. In practice this is already the case for infectious substances of Category B.

9. There are already exemptions on tunnel prohibitions for the following UN numbers:

- UN No. 2919, RADIOACTIVE MATERIAL, TRANSPORTED UNDER SPECIAL ARRANGEMENT
- UN No. 3291, CLINICAL WASTE, UNSPECIFIED, N.O.S. or (BIO) MEDICAL WASTE, N.O.S. or REGULATED MEDICAL WASTE, N.O.S.
- UN No. 3331, RADIOACTIVE MATERIAL, TRANSPORTED UNDER SPECIAL ARRANGEMENT, FISSILE
- UN No. 3359, FUMIGATED CARGO TRANSPORT UNIT
- UN No. 3373, BIOLOGICAL SUBSTANCE, CATEGORY B.

Among these, UN Nos. 2919, 3291, 3331 and 3373 too have a value of 0 in column (7a).

10. It is thus possible to provide for an exemption of tunnel restrictions, even for substances with a value of 0 in column (7a) of Table A of Chapter 3, without affecting transport safety.

11. However, we do not think it is advisable to change the category assigned to infectious substances of Category A (UN Nos. 2814 and 2900) from transport category 0. If that happened, exemptions would be made to the requirement for shipping and transport personnel to receive the training they need in order to understand the hazards they face, the necessary marking of vehicles would be lost and companies would be exempted from the obligation to have safety advisers. The most appropriate solution to maintain these provisions — which after all address actual risks in tunnels and make it possible to carry infectious substances and samples in tunnels without too much bureaucratic hassle — is the one already adopted for infectious substances of Category B (infectious waste (UN No. 3291) and biological substances, Category B (UN No. 3373)). This solution consists in having no tunnel restriction code in column (15) of Table A of Chapter 3.2.

12. We thus propose replacing the tunnel restriction code “(E)” with “(-)” in Table A of Chapter 3.2, for the first entries under UN Nos. 2814 and 2900, when transported in packages.
For both these UN numbers, no similar exemption should be provided for the second entry, involving liquid nitrogen, and the third entry, covering transport in bulk containers. The system set up in ADR based on exemptions to 1.1.3.6 does not allow for a specific exemption to be made for tunnels without at the same time exempting other provisions under 1.1.3.6.2, which would for instance authorize another transport category (for instance, category 3), similar to the one for UN No. 1977. As for the case addressed by the third entries, we have no experience. Such transport in tunnels has always been subject to authorization in Switzerland, and there is apparently no need now to provide for the exemption described above.

On the other hand, tunnels have always been used without restriction for samples of the first entry under UN No. 2814. Their use meets a need which can quickly become urgent.

Proposal

For the first entry under UN Nos. 2814 and 2900 of Table A of Chapter 3.2, replace the existing tunnel restriction code “(E)” in column (15) with “(-)”.  

Consequential amendment: In 1.9.5.2.2, for tunnel category E, amend the text as follows:

Restriction for all dangerous goods other than the first entries in Table A of Chapter 3.2 for UN Nos. 2814 and 2900 and UN Nos. 2919, 3291, 3331, 3359 and 3373 and for all dangerous goods in accordance with the provisions of Chapter 3.4 if the quantities carried exceed 8 tonnes total gross mass per transport unit.