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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

Meeting of the Multidisciplinary Group  
of Experts on Safety in Tunnels (rail)  
(Second session, 25-26 November 2002,  
agenda item 2)

**QUESTIONNAIRE ON SAFETY IN RAIL TUNNELS**

Transmitted by the Government of Switzerland  
(Federal Office of Transport)

**REGULATIONS AND GENERAL DATA ON RAIL TUNNEL SAFETY**

**Question 1.** Are there any legislation, regulations, recommendations on safety in rail tunnels in your country (dealing with geometry, infrastructure, equipment, signalling, operation, traffic, train operator education and training, etc.)? If yes, please give details and provide all documents.

Legislation is provided by the operating provisions - Ausführungsbestimmungen zur Eisenbahnverordnung from 29 June 2001 (AB-EBV, SR 742.141.11). Copies of the relevant paragraphs in German and French (English not available) → Annexes 1 (d) and 1 (f) will be made available at the session. (The operating provisions AB-EBV can be ordered at the Swiss Federal Office for Buildings and Logistics, 3003 Berne or by e-mail [verkauf.gesetze@bbl.admin.ch](mailto:verkauf.gesetze@bbl.admin.ch))

Recommendations: c.f. Schlussbericht zur Sicherheit in bestehenden schweizerischen Eisenbahntunnels (Federal Office of Transport, January 2001). A copy of this final report in German and French (English not available) → Annexes 2 (d) and 2 (f) will be made available at the session.

Also, the Federal Office of Transport (FOT) information for media in German, French and Italian (English not available) → Annexes 3 (d), 3(f) and 3 (i) will be made available at the session. [<http://www.bav.admin.ch/index.cfm?nav=medienmitteilungen,archiv&aktion=deta il&ID=289&sprache=f>].

**Question 2.** Do you consider the above texts sufficient? If not, please give details.

The above stated requirements are no longer considered as sufficient, especially the legislation AB-EBV. Gaps are now going to be filled first on the standards level (see answer for question 3). Legislation will then be changed appropriately.

Note: Safety in the new tunnels Gotthard (57 km) and Lötschberg (34 km) is evaluated and realized by the authority through a special process and the so-called Projektorganisation Sicherheitsbericht AlpTransit.

**Question 3.** Is your authority considering any changes in the above texts? If yes, please give details and provide the current drafts.

The existing gaps are going to be filled in the drafts of the Swiss standard SIA 198 and SIA 198/1. These drafts can be downloaded from:

<http://www.sia.ch/tunnel/index.html> <<http://www.sia.ch/tunnel/index.html>>

**Question 4.** Is there any specific methodology for risk assessment and risk management for tunnels in your country? If yes, please provide details.

There is a specific methodology developed by the Swiss Federal Railways (SBB) and the consulting bureau Emch & Berger. This methodology is SBB's property. Documentation could be requested from the Swiss Federal Railways, Safety and Quality, Parkterasse 14, CH-3000 Bern 65.

**Question 5.** Does your country classify rail tunnels, or envisage doing so in future, by the risk of accident associated with them? If yes, please provide details and documents.

Please see part B/chapter 3.3 in Schlussbericht zur Sicherheit in bestehenden schweizerischen Eisenbahntunnels.

Note: With reference to the Schlussbericht zur Sicherheit in bestehenden schweizerischen Eisenbahntunnels the railway infrastructure companies have suggested safety measures for their tunnels. FOT is now evaluating these suggestions and based on the results safety standards for the existing tunnels in Switzerland will be set.

**Question 6.** Please provide any existing data and statistics on fires, accidents, breakdowns in rail tunnels in your country.

Please see part B/chapter 2 in Schlussbericht zur Sicherheit in bestehenden schweizerischen Eisenbahntunnels (Januar 2001).

For further questions or if having problems with the documentation, please feel free to contact Swiss Federal Office of Transport.

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