



**Economic and Social
Council**

Distr.
GENERAL

TRANS/AC.9/2002/5
18 September 2002

Original: ENGLISH

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 the United Kingdom

REGULATIONS AND GENERAL DATA ON RAIL TUNNEL SAFETY

Question 1

1. Legislation, Regulations, recommendations on safety in rail tunnels.

UK law is established by Acts of Parliament. Two in particular establish railway safety in general as well as in other activities. They are:

The Transport and Works Act 1992.

The Health and Safety at Work Act 1974.

These Acts of Parliament define the law in general. Both give the relevant Secretary of State the powers to make Regulations.

2. The Transport and Works Act 1992 gives the Secretary of State for Transport powers to approve new or altered "works, plant and equipment" before they are first bought into use (Section 41). There is also a power to impose a maximum speed or a maximum weight transmitted to the rails (Section 45). See annex A (Informal document No.14) for the exact wording.

3. The Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994 allow the Secretary of State for Transport to delegate these powers of approval to Her Majesty's Chief Inspector of Railways or his Deputy. HM Railway Inspectorate has issued guidance on the approval of railway works, plant and equipment – copy supplied to the secretariat. Equipment includes vehicles. This document mentions tunnels once as a possible “relevant operational limitation - (vii) the use in tunnels or under overhead electric traction power wires”.

4. The Health and Safety at Work Act etc. 1974 has provisions having the effect to:

- (a) secure the health, safety and welfare of persons at work;
- (b) protect persons other than persons at work against risks to health or safety arising out of or in connection with the activities of persons at work.

5. Several Regulations made under the Health and Safety Of Works etc. Act 1974 apply to railways in general. They are:

The Railway Safety (Miscellaneous Provisions) Regulations 1997. This consolidates many old Acts of Parliament, etc. — see Annex B (Informal document No. 14).

The Railways (Safety Critical Works) Regulations 1994. - see Annex B (Informal document No.14).

The Carriage of Dangerous Goods by Rail Regulations 1994. Mostly on packaging and labelling.

The Electricity at Work Regulations 1989.

Construction (Design and Management) Regulations 1994. - see Annex B (Informal document No. 14).

6. EC Directives are also applied including:

The technical specification for interoperability of the infrastructure subsystem of the trans European high-speed rail system (Article 6(1) of Directive 96/148/EC). In particular an aerodynamic pressure limit in tunnels.

7. In order to meet the Regulations, etc. and obtain approval HMRI offers advice on good practice. This is contained in the Railway Safety Principles and Guidance.

Part I sets out the general Safety Mission and thirty-three principles. Principle 1 now reads “*The health and safety of people affected by a railway should be ensured so far as is reasonably practicable*”.

Principle 9 deals with tunnels and includes 13 factors to be considered.

Part 2 contains eight sections. Section A develops the factors to be considered when dealing with tunnels.

Part 3 deals with Developing and Maintaining Staff Competence.

The parts of the RSPG dealing with tunnels are presented as Annex C (Informal document No.14).

8. Railtrack, the Association of Train Operating Companies and others have prepared Railway Group Standards. They include "Safe Asset Management of Infrastructure - Tunnels".

Question 2

Do you consider that the above texts are sufficient? If not give details.

9. A further factor may be added to Principle 9 to consider the hazard of external attack on a railway tunnel. It will probably suggest that there should be a plan to enable any underground system to be purged of any toxic or noxious substance.

Question 3

Is your authority considering any changes in the above texts?

10. The RSPG is in the course of being re-edited. The elements dealing with tunnels are unlikely to be substantially changed.

Question 4

Is there any specific methodology for risk assessment and risk management for tunnels in your country?

11. All railway operators have to submit and have approved a Railway Safety Case before they are allowed to operate.

12. The safety case has to serve two main purposes:

(a) to give confidence that the operator has the ability, commitment and resources to properly assess and effectively control risks to the health and safety of staff, contractors and the public; and

(b) to provide a comprehensive core document, with links to other more specific documents rules and procedures, against which management and HSE (HMRI) can check that the accepted risk control measures and health and safety management systems have been properly put into place and continue to operate in the way originally intended.

13. Tunnels would be included as part of the general safety case. Risk analysis would be used to support design matters.

14. The introduction the Railway (Safety Case) Regulations 2000 is attached as Annex D (Informal document No.14).

Question 5

Does your country classify rail tunnels by the risk of an accident associated with them?

15. No.

Question 6

Provide data on fire accidents and breakdowns in rail tunnels.

16. See separate package.
