



**Economic and Social
Council**

Distr.
GENERAL

ECE/TRANS/WP.15/2007/3
8 February 2007

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods

Eighty-second session
Geneva, 7-11 May 2007
Item 5 of the provisional agenda

PROPOSALS FOR AMENDMENTS TO ANNEXES A AND B OF ADR

Guidelines for the calculation of risks in the transport of dangerous goods

Transmitted by the Government of Germany

SUMMARY

Executive Summary:	This working document briefly presents the objectives and contents of the guidelines and discusses benefits and applicability of these guidelines in transferring the procedure to the transport of dangerous goods by road.
Action to be taken:	Decision on the further procedure
Related documents:	INF.8 (81 st session) and ECE/TRANS/WP.15/190

Objectives and contents of the Guidelines for the calculation of risks in the transport of dangerous goods

1. The assessment of risks in general and in the transport of dangerous goods in particular is increasingly moving into the focus of politics and the general public. The above mentioned guidelines have been developed for rail transport to enable a discussion to be conducted on a rational basis.
2. It is the objective of the guidelines to achieve a uniform approach to the assessment of risks in the transport of dangerous goods by rail. The guidelines define minimum requirements

and recommend basic approaches to measuring the necessity of special measures (e.g. route restrictions).

3. The guidelines are based on existing international standards that address aspects of risk assessment for the transport of dangerous goods by rail (e.g. Directive 2004/49/EC on Rail Safety and the RAMS standard EN 50126¹) as well as existing tried and tested procedures or methods of national risk analysis models in some countries (France, Netherlands, Switzerland and the United Kingdom). Their methods and criteria result from the implementation of the Seveso II Directive (Directive 96/82/EC) on the control of major-accident hazards involving dangerous substances.

4. The guidelines contain definitions of basic technical terms and requirements with respect to risk analysis and assessment. They also present the risk analysis procedure (identification of hazard, data collection, the procedure to create so-called event trees, definition and description of scenarios, determination of risk ratios (damage expectancy values). The following are specified as important components of the risk analysis:

- (a) accident-relevant structural parameters of rail carriage which are of importance to scenario definition (e.g. relevant technology, infrastructure);
- (b) minimum requirements placed on the data collected;
- (c) relevant factors for the modelling of the consequences of accidents (population density, auxiliary services, weather conditions, topography, relevant accident consequences etc.); and
- (d) basic procedures to assess risk and their forms of presentation (individual risk of suffering specific accident consequences; group risks).

5. Finally, the assessment procedures of individual Member States are considered.

Transferability to the scope of the ADR

6. Unlike the RID, the ADR does not explicitly call for proof of the necessity for traffic-related restrictions. However, politicians require an appropriate decision-making base. The public and not only the industry concerned have a right to transparency of measures taken.

7. The Member States are called upon to develop their own models for the empirical analysis of risks, to set out assessment criteria and to set into motion decision-making procedures on their own responsibility. The guidelines can therefore provide support without encroaching on sovereign competencies because a distinction is made between scientific analytical fact analysis and the political decision-making process. Politicians would therefore have an instrument at hand for the assessment of hazards and preventive security. They would no longer be dependent on subjectively determined hazard factors to solve the originally political problem of determining acceptable or no longer acceptable risks. Political decision-making therefore becomes rational. The transparency of the decision imparts acceptance by the parties affected by the measures and

¹ Railway applications - The specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS)

by the population in general. Measures become more efficient because they are more targeted and empirically founded.

9. The guidelines are based on general and essentially accepted scientific methods of hazard analysis and security, currently orientated to the specific conditions of rail transport. The general methods of risk analysis can similarly be adapted and transferred to the different framework conditions of road transport. Within the scope of individual case studies the risk analysis instrument has already been applied to the carriage of dangerous goods by road. Feasibility has therefore been proven.

10. Finally, it is to be noted that in future risk analyses are prescribed for the area of dangerous goods transport in road tunnels (Directive 2004/54/EC of 29.04.2004, Art. 3, Annex 1, 3.7 hazardous good transport and Art. 13). The availability of an appropriate instrument would be a suitable means for the Member States by contrast to a possible mandatory regulation from a different level (e.g. from the European Union).

Proposal

11. The discussion in the last meeting of the WP.15 was conducted on the basis of a late informal paper without detailed background information. Nevertheless, a number of delegates were positive about this subject. The above basic explanation is an attempt to place all delegates in a position to recognise the benefits of providing guidelines whose use is not binding.

12. Germany therefore proposes that the guidelines prepared for rail transport be adapted to the requirements of road transport and that the adapted guidelines then be provided for voluntary use. An initial draft of an adapted version could be prepared by Germany and submitted to the WP.15 for consultation.
