## **ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods

<u>Joint Meeting of the RID Safety Committee and the Working Party on the Transport of Dangerous Goods</u> (Geneva, 13-23 September 2005)

## **Future work**

Working group on Standardized risk analysis (Bonn, 3-4 May 2005)

Office Central
Zentralamt
Central Office

A 81-03/504.2005 13 June 2005

Original: German

## TO THE GOVERNMENTS OF THE MEMBER STATES OF OTIF

Final report of the third meeting of the RID Committee of Experts Working Group on standardized risk analysis (Bonn, 3 and 4 May 2005)

transmitted by Germany (Gesellschaft für Anlagen- und Reaktorsicherheit mbH – Association for Plant and Reactor Safety (GRS)) 1. At the invitation of the German Federal Ministry for Transport, Construction and Housing (BMVBW), the 3<sup>rd</sup> session of the working group on standardized risk analysis for RID/ADR Chapter 1.9 was held in Bonn on 3 and 4 May 2005.

#### Agenda

ITEM 1: Welcome

ITEM 2: Guidelines for standardized risk analysis

ITEM 3: Research project ITEM 4: Any other business

#### ITEM 1: Welcome

2. **Mr Hundhausen** (chairman of the working group) welcomed participants to the working group session (for list of participants, see Annex). It was planned to present and discuss France's document INF. F 1 under ITEM 3.

#### ITEM 2: Guidelines for standardized risk analysis

- 3. **Mr Brücher** (GRS) gave a brief overview of the genesis of the draft guidelines in INF. D 1. After supplementary papers had been collected in addition to those the working group already had available, a preliminary draft had been prepared, **based mainly on information from the Netherlands and Germany**, which was discussed **by representatives from the Netherlands and Germany** in an editorial meeting on 10 March 2005. Members of the working group who were interested, but who were unable to take part in this meeting, also had the opportunity of making comments on the draft in writing. After a few additional points and comments were incorporated, the draft guidelines were prepared as document INF. D 1 in order that they could be discussed at the working group's 3<sup>rd</sup> session.
- 4. **Mr Tiemersma** (NL) indicated that he was largely satisfied with the guidelines and considered that preparation of the guidelines, with further revision, fulfilled the working group's mandate.
- 5. **Mr Pfauvadel** (F) regretted that France had been unable to take part in the editorial meeting. As a substantial point of criticism, he mentioned the general rejection contained in the guidelines of a comparative risk analysis, which from his point of view also constituted a sufficient method for RID Chapter 1.9 in certain cases.
- 6. **Mr Le Fort** (CH) offered to explain in the meeting Switzerland's comments, which had not been ready in time, on the preliminary draft version. In addition, he raised the question for discussion as to whether the guidelines were sufficient as a consensus and offered a

- further meeting of the working group in Switzerland as the basis for further development of a common understanding (cf. INF. 1 CH).
- 7. Like France, **Mrs Bailleux** (B) recognized the possibility in straightforward cases of restricting oneself to a qualitative approach.
- 8. **Mr Brücher** (GRS) pointed to the wording contained in Chapter 1.9, which requires proof of the need for measures, and concluded from this that in the first instance, quantification of the level of risk is necessary in order to ensure broad acceptance of risk analysis and resultant measures.
- 9. **Mr Pfauvadel** (F) declared here that in obvious cases concerning, for example, the setting up of a loop line with less risk and without additional obstacles to traffic, no problem existed that necessitated quantification. **Mr van den Brand** (NL) and **Mr Balmer** (CH) supported this point of view.
- 10. **Mr Hundhausen** (chairman) and **Mr Brücher** (GRS) again emphasized that in cases where measures led to traffic restrictions, more time and effort was appropriate, including quantification of the risk.
- 11. At the suggestion of **Mr van den Brand** (NL), a supplementary paragraph for section 2.2 concerning the basic requirements was drafted in English during the following break. The aim of this paragraph was to ensure the delimitation between the application of quantitative and qualitative methods (see Annex). The subsequent controversial discussion on the balance required between gains in safety and possible restrictions in selecting pass-by lines finally resulted in the consensual wording "significant improvement of safety" as the prerequisite for applying qualitative risk analysis. It was agreed to make corresponding amendments to the text in the other sections where reference was made to the quantitative/qualitative approach aspect.
- 12. In section 1.1 (Background), paragraph 3, an alternative text proposed by **Mr van den Brand** (NL) was included, the aim of which was to set out the motivation of the RID Committee of Experts more clearly.
- 13. Owing to a differing approach in the allocation of passengers to groups, the definition of the external risk in section 2.1 was amplified by a corresponding discussion on the possible allocation of groups of people. The definition of the term risk aversion was widened in accordance with a proposal from **Mr van den Brand** (NL).
- 14. **Mr Balmer** (CH) requested correct use of the term event tree instead of error tree in section 3.2 (definition of scenarios) and requested that the overly specialised "rolling away" scenario be deleted.
- 15. At the suggestion of the Netherlands, the reference to length in the risk to be assessed (section 3.5) will not be required in a comparison of alternative routes. The passage on

- harmonizing the risk acceptance in section 4 was adapted and supplemented with directions on other possible assessment criteria (text proposed by NL).
- 16. In section 5 (risk management), at the suggestion of **Mr Pfauvadel** (F), the first sentence was expanded in the sense that the risk assessment is to provide information on the tolerability of the situation analysed and not on the tolerability of the risk itself.
- 17. It was agreed that GRS would revise the draft by around the beginning of June and would then give the members of the working group 6 weeks to make any subsequent comments. After that, the draft would be submitted to the RID Committee of Experts and a report made on it at the RID Committee of Experts session in November.
- 18. There then followed a discussion on various proposals for recommendations to the RID Committee of Experts with regard to a possible continuation of the working group. **Mr Le Fort's** (CH) proposal to hold another meeting in Switzerland to continue and intensify the exchange of experience was very much welcomed, but was made dependent upon a vote by the RID Committee of Experts.
- 19. **Mrs Bailleux** (B) and **Mr Pfauvadel** (F) considered that there was a need for further work in connection with the definition of more specific guidelines for carrying out qualitative risk analysis.
- 20. Improving the international statistical transport accident database and a comparison of risk analysis systems at specific scenarios (benchmark) were discussed as possible steps towards reducing uncertainties in carrying out and assessing risk analysis. The Netherlands reminded the meeting that bearing in mind the time and effort required for work such as this and the extension of the subject of risk analysis beyond the area of RID, the meeting should not resolve to do too much. **Mr Pfauvadel** (F) also pointed out that at the moment, there was no mandate for such work, and proposed to continue the subject of a benchmark in connection with France's presentation under ITEM 3.
- 20a. Mrs Berrevoets (NL) commented that measures could also be taken on spatial planning near the railway tracks, for instance zoning, emergency planning, etc.

## ITEM 3: Research project

21. Mr Ruffin (INERIS) introduced document INF. F 1 proposing a comparison of models of risk analysis systems that should make possible better evaluation of differences between models and of uncertainties. For this, States that already carry out or plan to carry out corresponding risk analysis should carry out risk analysis for selected scenarios. Mr Ruffin (INERIS) emphasized that so far, the proposal concentrated on qualitative methods of risk analysis, but that quantitative analysis could also be incorporated, which was generally welcomed.

- 22. **Mr van den Brand** (NL) and **Mr Pfauvadel** (F) hoped that such a comparison of models and methods would result in the procedures used in the various States providing comparable risk assessments. They favoured a research approach such as this as opposed to a complex analysis of uncertainties in the individual partial models of risk analysis methods and pointed to the difficulties of detailed harmonisation of methods.
- 23. **Mr Rein** (D) said that following the failure of the working group's original approach of seeking harmonisation that was as detailed as possible, such a systematic comparison of methods should be accorded greater priority than just continuing with an exchange of experiences. **Mr Brücher** (GRS) added that such a comparison of models not only opened up the possibility of checking whether there was a need for the subject to be dealt with further, but also, if necessary, in which subareas such a need existed (e.g. statistical data or physical sub models).
- 24. The participants at the meeting judged differently the effort required for such a project in terms of work and costs. **Mr van den Brand** (NL) considered that a comparison of the models within the framework of continuation of the working group, possibly decided by the RID Committee of Experts, was sufficient. However, **Mr Pfauvadel** (F) and **Mr Rein** (D) proposed that the possibility of partial funding from the EU of a long-term project be checked, in order to ensure well co-ordinated establishing of scenarios, project management and detailed evaluation.
- 25. **Mr Tiemersma** (NL) feared that such a project might go too far if it were aimed at harmonisation of the methods. **Mr Rein** (D) affirmed again that the result of such a research project should have no direct influence on national regulations. In connection with this therefore, **Mr Pfauvadel** (F) asked that in all joint specifications, the balance between the interests of goods traffic and the population be maintained and unnecessary restriction of the authorities' competence be avoided.
- 26. **Mr** Le Fort (CH) proposed that the sequence for the course of action following preparation of the guidelines should be firstly, continuation of the exchange of experience, and then to proceed cautiously in the direction of further unification of national methods.

27. As a result of further discussion, it was agreed that 1. Switzerland and 2. the Netherlands would organize a meeting to demonstrate their work in this field, both to initiate further discussion and with the aim of informing other countries with less experience of these technologies and this policy. France would draft a position paper for the RID Committee of Experts, summarizing the basic content and aims of the research project. In parallel, the European Commission's DG TREN should be informed of the initiative. At the same time, the RID Committee of Experts should be recommended to set up a platform for the permanent exchange of experience, within which case studies could also be dealt with.

## ITEM 4: Any other business

28. No date was agreed for a possible further meeting as the RID Committee of Experts vote would have to be awaited first.

#### Annex

Text agreed for section 2.2 of the guidelines:

- 1. Where no alternative comparable route is possible, any restriction should be justified according to the principle set out in the guidelines for quantitative risk assessment in reference to a tolerable risk level used in the Member State (which may be the nationally used principles ALARA, ALARP, stand still principle or risk criteria).
- 2. However, where alternative comparable routes may be used, the competent authority may set up restrictions on the basis of:
  - (a) normally a qualitative comparison between the routes if it is obvious that the proposed restrictions lead to a significant improvement of safety
  - (b) a quantitative comparative risk assessment in other cases.

# Annex

# List of participants

Name	Body represented	Address	Phone	Fax	e-mail
Bailleux, Caroline	Belgium (Min.)	Ministère des communications et de l'infrastructure Service public fédéral Mobilité et Transports Cantersteen, 12 B-1000 BRUXELLES	+32/2-525-4908	+32/2-525-4976	caroline.bailleux@ staf-tsds.be
Heid, Andrea	CEFIC (VCI)	Verband der chemischen Industrie e. V. (VCI) Abt. Handelspolitik und Verkehr, Europakoordinierung Karlstraße 21 D-60329 FRANKFURT/M.	+49/69-2556-1444	+49/69-2556-1512	heid@vci.de
Dr. Lange, Florentin	Germany (GRS)	Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) mbH Schwertnergasse 1 D-50667 KÖLN	+49/221-2068-788		lag@grs.de
Dr. Brücher, Wenzel	Germany (GRS)	Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) mbH Schwertnergasse 1 D-50667 KÖLN	+49/221-2068-931	+49/221-2068-9902	brc@grs.de
Rein, Helmut	Germany (Min.)	Bundesministerium für Verkehr, Bau- und Wohnungswesen	+49/228-300-2640	+49/228-300-807- 2645	helmut.rein@bmv bw.bund.de

Name	Body represented	Address	Phone	Fax	e-mail
		- Referat A 33 - Robert-Schuman-Platz 1 D-53175 BONN			
Hoffmann, Alfons	Germany (Min.)	Bundesministerium für Verkehr, Bau- und Wohnungswesen  – Referat A 33 – Robert-Schuman-Platz 1 D-53175 BONN	+49/228-300-2645	+49/228-300-807- 2645	alfons.hoffmann@ bmvbw.bund.de
Würsig, Andreas	Germany (BAM)	Bundesanstalt für Materialforschung und –prüfung Arbeitsgruppe III.23 Unter den Eichen 87 12205 BERLIN	+49/30-8104-4638	+49/30-8104-1327	andreas.wuersig@bam.de
Braun, Franz	Germany (EBA)	Eisenbahn-Bundesamt Referat 33 Vorgebirgsstraße 49 D-53119 BONN	+49/228-9826-352	+49/228-9826-352	braunf@eba.bund. de
Dr. Hundhausen, Gerd	Germany (BAST)	Bundesanstalt für Straßenwesen Brüderstraße 53 D-51427 BERGISCH-GLADBACH	+49/2204-43-411	+49/2204-43-673	hundhausen@bast. de
Pfauvadel, Claude	France (Min.)	Ministère de l'Équipement des Transports du Logement du Tourisme et de la Mer Direction des transports terrestres (DTT/MD) Arche de la Défense – Paroi Sud F-92055 LA DÉFENSE CEDEX	+33/1-40818766	+33/1-40811065	claude.pfauvadel @ equipement.gouv.f r

Name	Body represented	Address	Phone	Fax	e-mail
Dr. Ruffin, Emmanuel	France (INERIS)	INERIS – Institut National de l'Environnement Industriel et des Risques Direction des Risques Accidentels Parc technologique ALATA B.P. n°2 F-60550 VERNEUIL EN HALATTE	+33/3-4455-6821	+33/3-4455-6295	emmanuel.ruffin@ineris.fr
Tiemersma, Klaas	Netherlands (Min.)	Ministerie van Verkeer en Waterstaat Postbus 20904 NL-2500 EX DEN HAAG	+31/70-351-1581	+31/70-351-1479	klaas.tiemersma@ minvenw.nl
van den Brand, Dick	Netherlands (Min.)	Ministerie van Verkeer en Waterstaat Postbus 20904 NL-2500 EX DEN HAAG	+31/70-351-1574	+31/70-351-1479	dick.vande.brand @ minvenw.nl
Berrevoets, Monique	Netherlands (ProRail)	ProRail Inframanagement Postbus 2038 NL-3500 GA UTRECHT	+31/30-235-6337	+31/30-235-8985	monique.berrevoet s@ prorail.nl
Conrad, Jochen	OTIF	Zwischenstaatliche Organisation für den internationalen Eisenbahnverkehr (OTIF) Gryphenhübeliweg 30 CH-3006 BERN	+41/31-359-1017	+41/31-359-1011	jochen.conrad@oti f.org
Le Fort, François	Switzerland (BAV)	OFFICE FEDERAL DES TRANSPORTS Division Technique / Matières dangereuses	+41/31-324-1209	+41/31-324-1248	francois.lefort@ bav.admin.ch

Name	Body	Address	Phone	Fax	e-mail
	represented				
		CH-3003 BERNE			
Heintz, Jean-Georges	UIC	SNCF – Direction développement	+33/1-5325-3028	+33/1-5325-3067	jean-
	(SNCF)	durable et environnement			georges.heintz@
		34, rue du Commandant Mouchotte			sncf.fr
		F-75699 PARIS CEDEX 14			
Egli, Hanspeter	UIC	SBB AG	+41/512202962	+41/512203202	hanspeter.egli@S
	(SBB)	Infrastruktur – Betriebsführung			BB.ch
		Mittelstraße 43			
		CH-3000 BERN 65			

-----