

## **Safety of Transport of Radioactive Material**

### **A Seminar on Complex Technical Issues**

11-12 January 2006  
IAEA Board Room, C04  
Vienna, Austria

*Organized by the*  
International Atomic Energy Agency (IAEA)

### **Background**

Radioactive materials are used in the fields of medicine, industry, research and nuclear power production. The use of radioactive material necessitates its transport and therefore careful attention needs to be paid to the safety of the public and workers involved, as well as of the environment. Many types of radioactive material and all modes of transport are involved.

An International Conference on the Safety of Transport of Radioactive Material (the International Conference) took place in Vienna, Austria, from 7 to 11 July 2003 to address a range of important issues associated with the safe transport of radioactive material. Subsequently, the IAEA General Conference acknowledged the International Conference President's summary conclusion that there was scope for additional efforts to communicate the complex technical issues involved in the area of safety which relate to transport and endorsed the International Conference President's suggestion that the Agency hold a seminar to discuss the latest information on these issues. This suggestion was incorporated into an Action Plan for Safety of Transport of Radioactive Material, which was approved by the Board of Governors in March 2004.

The Agency's Transport Safety Standards Committee (TRANSSC) considered this matter at its 10<sup>th</sup> meeting (March 2005) and recommended that the Seminar "should be of the nature of providing information to the audience who should be policy makers/advisors from the Member States or their representatives in the Permanent Missions in Vienna and that the content of the Seminar should be drawn from the topics included in the IAEA Conference of July 2003 and International Conference on Packaging and Transport of Radioactive Material (PATRAM-04) held in Berlin in 2004.

### **Purpose**

The purpose of the Seminar is to review the latest information on complex technical issues related to the safety of transport of radioactive material in the context of the current environment in which such transports take place and to present this information to policy makers. These discussions are intended to:

- Lead to a better understanding of the transport of radioactive material; and
- Provide information on new developments in concepts, knowledge, and technologies that potentially lead to changes in transport systems.

### **1. LIST OF TOPICS**

The following topics have been selected for discussion based on TRANSSC's guidance:

- a. The transport safety regulatory program
- b. Transport experience 2003 – 2005
- c. TranSAS missions
- d. Physical testing of spent fuel casks
- e. Technical issues and evaluations
- f. IAEA-sponsored/supported research on transport topics 2003 – 2005
- g. Emergency preparedness and response
- h. Technical training
- i. Denial of shipments.

## **2. PROGRAMME STRUCTURE**

A sequence of sessions will examine the above-mentioned issues. Senior experts will introduce the major issues in each session. Ample time for discussion will be provided. Panel sessions will provide an opportunity for a more intensive exchange of views on important issues with the participants. The programme schedule of the seminar is provided at the annex.

## **3. PARTICIPANTS**

The seminar is directed at policy makers/advisors from the Member States or their representatives in the Permanent Missions in Vienna.

## **4. PARTICIPATION**

Participation in the Seminar will be limited to a maximum of 125.

All persons wishing to participate in the meeting are requested to complete a Participation Form (Form A) and send it as soon as possible to the competent official authority (Ministry of Foreign Affairs or national atomic energy authority) for subsequent transmission to the Scientific Secretary. A participant will be accepted only if the Participation Form is transmitted through the government of a Member State of the IAEA. Participants whose designations have been received by the IAEA will be notified directly before the meeting.

Subsequent correspondence should be sent to the Scientific Secretary.

## **5. WORKING LANGUAGE**

The working language of the Seminar will be English.

## 6. SECRETARIAT

The address of the Scientific Secretariat is:

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It is requested that participants periodically review this page for updates.

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**11 January 2006**

**8:30 – 9:00** Welcome and Seminar Overview (30 minutes)

- Welcome and Introductions (Mr.W.Brach, USA – Seminar Chair) 5 minutes
- Opening Comments (Mr.T.Taniguchi – IAEA) 10 minutes
- Seminar Overview (Mr.W.Brach, USA) 10 minutes
- Administrative matters (Mr.M.Wangler, IAEA) 5 minutes

**9:00 – 10:20** Regulatory Programme (2 hours includes 15- 20 minutes/presentation, followed by 15 minutes open panel discussion)

- Objective of Transport Regulations (Mr.J.Stewart, UK)
- Methods of assuring regulatory compliance (Mr.J. van Aarle and Mr.B.Knecht, Switzerland)
- Application and implementation of international regulations (Mr.E.Cottens, Belgium)
- National Regulations in perspective (Mr.C.Ardouin, New Zealand)
- Panel Question/Answer Period

**10:20 – 10:40** Coffee Break

**10:40 – 12:00** Regulatory Programme Session continues

- Development and Implementation of Radiation Protection Programmes (Mr.J.Lopez-Vietri, Argentina)
- Collection, Analysis, and Dissemination of Radiation Exposure Data (Mr.M.Wangler, IAEA)
- Co-ordination among different Competent Authorities (Mr.S.Trivelloni, Italy)
- Panel Question/Answer Period

**12:00 – 2:00** Lunch

**2:00 – 3:30** Transport Experience (1 ½ hours includes 15 minutes/presentation, followed by 15 minutes open panel discussion)

- Transport experience – 2003-2005 (Mr.A.Brown, WNTI)
- Safety Assessment of Marine Transport (Mr.D.Tsumune, Japan)
- Management systems for transport of radioactive material (Ms.E.Ryan, US)
- Risk analysis in transport of radioactive material (Mr.R.Lewis, USA)
- Emergency Response Arrangements for the Transport of Radioactive Materials (Mr.E.Morgan-Warren, UK)
- Denial of shipment Mr.D.McInnes, Canada)
- Radioactive Materials by Air – The Pilot's Perspective (Mr.M.Gessl, IFALPA)
- Panel Question/Answer Period

**3:30 – 3:50 Coffee Break**

**3:50 – 4:40 TranSAS Missions (1 hour includes 10 minutes/presentation, followed by 10 minutes open panel discussion)**

- Methodology of TranSAS missions (Mr.C.Young, UK)
- A summary of findings of TranSAS (Mr.M.Wangler, IAEA)
- Common areas calling for corrective measures (Mr.J.Aguilar, France)
- Panel Question/Answer Period

**4:40 – 5:30 Training (50 minutes, includes 10 -15 minutes/presentation, followed by a 10 minute open panel discussion)**

- Training Programmes for Regulatory Personnel / Consignor's Personnel (Mr.M.Mallaupoma Gutierrez, Peru)
- Training Programme on Class 7 goods for cargo handlers (Mr.H.Sannen, Belgium)
- Standardized Approach to Safety Training (Ms. G.Sadagopan, IAEA)
- Panel Question/Answer Period

**5:30 Adjourn for the Day**

**12 January 2006**

**8:30 – 8:45 Opening Comments**

- Previous Day Recap (Mr.W.Brach, USA, Chair) 10 minutes
- Administrative Matters (Mr.M.Wangler, IAEA) 5 minutes

**8:45 - Physical testing of packages (2 hours, includes 15- 20 minutes/presentation, followed by 15 minutes open panel discussion)**

- Examples of actual package testing and evaluation of Type B packages (Mr.G.Sert, France)
- Full-Scale Drop Testing of Spent Fuel Transport Packages (Mr.B.Droste, Germany)
- Japanese Experience in Physical Testing of Transport Packages (Mr.T.Saegusa, Japan)
- Acceptance criteria for packages following tests (Mr.S.Agarwal, India)
- How well do the tests simulate accident conditions of transport? (Mr.F.Lange, Germany)

**10:15 – 10:30 Coffee Break**

**10:30 – 11:30 Physical Testing of Packages continues**

- Package performance evaluation (Mr.P.Malesys, France)
- Accident analysis (Mr.K.Sorenson, USA)
- Panel Question/Answer Period

**11:30 – 12:00** Technical Issues and Evaluations (2 ½ hours, includes 15- 20 minutes/presentation, followed by 15 minutes open panel discussion)

- How safe is safe? (Mr.B.Desnoyers, France)
- Grandfathering/Validation of B (U) certificates (Mr.P.Nelson, Canada)

**12:00 – 2:00** Lunch

**2:00 – 3:30** Technical Issues and Evaluations continues

- Contamination limits-risk informed basis, CRP on Contamination (Mr.P.Malesys, WNTI)
- New problems of safe transport of radioactive material (Mr.V.Ershov, Russia)
- Exemption of material from the regulations (Mr.J.Selby, SA)
- Transport of high grade uranium ore, CRP on NORM (Mr.S.Faille, Canada)

**3:30 – 3:50** Coffee Break

**3:50 – 5:00** Technical Issues and Evaluations continues

- New category for medical isotopes (Mr.I.Gibbs, Australia)
- Transport of orphan sources (Mr.Heard/ Mr.V.Averkiev, IAEA)
- Development of a European Applicant's Guide (Mr.F.Nitsche, Germany)
- Development of a Canadian/USA Standard Review Plan (M.Rahimi, USA)
- Panel Question/Answer Period

**5:00** Seminar Wrap up and Closing (Mr.W.Brach, USA, Chair)