CHAIRMAN'S REPORT OF SECOND MEETING

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INTERNATIONAL ATOMIC ENERGY AGENCY  
DIVISION OF RADIATION AND WASTE SAFETY  

TRANSPORT SAFETY STANDARDS ADVISORY COMMITTEE (TRANSSAC)  

Report of Second Meeting\(^1\)  

10-14 MARCH 1997  
IAEA HEADQUARTERS, VIENNA  

1. Opening of the meeting  
The meeting was opened by Mr. A. J. González (Director, Division of Radiation and Waste Safety). He observed that recent events reported in the mass media clearly indicate the level of interest and concern by the public and political leaders about the safety of radioactive material transport. In particular, the transport of wastes from nuclear applications through the Pacific, within Europe, and involving non-UN countries are topics of high visibility and interest despite the safety record resulting from the worldwide implementation of the IAEA’s Transport Regulations. This illustrates, among other things, that incorporating the transport Regulations into mandatory instruments is useful in strengthening their application. Mr. González reminded participants that the Agency's statutory safety program is directed at two objectives: establishing safety standards and providing for the application of those standards. He emphasized the importance in establishing safety standards, of working with other United Nations transport safety organizations and considering stronger approaches to jointly developing the standards.  

\(^1\)This report is keyed to the TRANSSAC Agenda, Working Paper No. 1, Rev. 2.  
(Attachment 1)
2. **Statement by the Chairman**

   The Chairman, Mr. F. W. Collin, welcomed the participants, in particular the designated TRANSSAC members, and reminded the meeting of the terms of reference for TRANSSAC as shown in Information Paper No.1. He observed that the recommendations from TRANSSAC should be based on the input from the designated members, while the discussion should certainly include contributions from advisors and observers as well.

   A discussion on the focus of TRANSSAC’s role showed that the unique aspect of its function is to provide advice on establishing the safety standards and their application. TRANSSAC advice concerning the Agency’s overall transport safety program is considered together with advice from other Advisory Committees (e.g. RASSAC, WASSAC, NUSSAC) in the light of the overall balance of Member State needs in forums such as the Programme Performance Assessment System (PPAS), the Agency's peer review process.

3. **Administrative information**

   Administrative information about facilities, procedures and services available to the meeting was provided by Mr. R. Rawl, Scientific Secretary.

4. **Adoption of the Agenda**

   Working Paper No. 1

   The provisional agenda was adopted with minor amendments and re-issued as Working Paper No. 1, Rev. 2.

5. **Update on the activities of the Agency’s Advisory Committees and the Advisory Commission on Safety Standards (ACSS)**

5.1 **Report of the Programme Performance Assessment System (PPAS) Review**

   (Working Paper No. 2)

   Mr. Rawl introduced Working Paper No. 2. Ensuing discussions led to the following conclusions:

   - it was noted that it is important that transport safety should be covered by the umbrella safety fundamental (1);
   - there are several areas where TRANSSAC will be involved in future activities related to or involving other Advisory Committees; when a list of the topics being addressed by the other Advisory Committees is available, TRANSSAC will identify those in which it would like to be involved (2). TRANSSAC strongly recommends that a comprehensive list of the topics for which Safety Standards Series publications are being developed should be compiled so that all Advisory Committees can indicate those in which they are interested in participating (3).
   - there was a strong desire that TRANSSAC be kept informed about developments related to the implementation of the Peer Performance Appraisal System...
recommendations (e.g., PPAS recommendations 5, 7, 8, 9, 11 in Working Paper No. 2) 

- it was observed that on page 8, 6th paragraph from the top, the phrase "the transport of UF₆" was not accurate since the transport regulations clearly apply to this material.

5.2 Report of the CSM of Advisory Committee and ACSS Chairpersons
(Working Paper No. 3 & Information Paper No. 2)

5.2.1 Unified procedure for the preparation and review of Safety Standards Series publications
(Working Paper No. 14)

The report of the CSM for the Advisory Committee and Advisory Commission Chairpersons (WP No. 3) and the "Unified Procedure for the Preparation and Review of Safety Standards Series Publications" (WP No.14) were reviewed with the following results:

- WP 14, item 4, it was observed that the first sentence provides a high degree of flexibility while ensuring that the lead Advisory Committee approves the document development plans as contained in the Document Preparation Profile (DPP). In the case of transport safety, TRANSSAC expects to review and approve the DPPs, including the specific plan for CSMs, TCMs, etc., needed to develop transport safety standards (5).
- WP No. 3, item 3.3, the observation that “the activities of the Advisory Committees should not be limited to publications and documents (as defined in WP No. 2, page 9)” was strongly endorsed;
- TRANSSAC requests to be informed about the positions and decisions of other Advisory Committees (6).

5.2.2 Membership of TRANSSAC

The number of assistants accompanying TRANSSAC members was discussed with the observation that the designated members of TRANSSAC are the focus of the meeting. While it is desirable to minimize the number of assistants, there is no actual limitation on this as indicated by the TRANSSAC terms of reference (Information Paper No. 1). Similarly, there are no limitations on the affiliations of assistants. In the end, there was no consensus that a sufficient problem existed that required TRANSSAC action, but it was recommended that a consistent policy concerning observers (other than those from invited international organizations and invited non-governmental bodies) should be developed and followed by the four Advisory Committees (7). This issue will be raised by the TRANSSAC Chairman at the meeting in November 1997 of the AC and Commission Chairpersons.
6. Reports from representatives of Member States and International Organizations on their regulatory activities and issues, including plans for regulatory revisions based on ST-1

6.1 Member States - TRANSSAC Members

Updates on the status of transport regulatory activities and other events in Member States were provided by the TRANSSAC members (Argentina, Australia, Belgium, Brazil, Canada, Egypt, France, Germany, Israel, Italy, Japan, the Netherlands, Poland, Russia, Sweden, the United Kingdom and the United States) and the observer from Spain. Common themes in the presentations included:

– the status of national transport regulations and the need to co-ordinate implementation of national ST-1 based regulations with the same target date (2001.01.01) as the international transport organizations;
– development and presentation of national transport safety and emergency response training courses and related materials;
– experience in dealing with transport incidents and concerns about shipments; and
– the need for getting accurate information about transport and radiation safety to the public.

6.2. International Organizations

The representatives of the United Nations air and sea specialized transport agencies [Ms. K. Rooney for the International Civil Aviation Organization (ICAO) and Mr. C.N. Young for the International Maritime Organization (IMO)], provided updates on their regulatory activities, particularly revisions to their transport regulations. With respect to the Co-ordinated Research Programme on Accident Severity’s During the Transport of Radioactive Material by Air, it was noted that TRANSSAC-I and the Advisory Group on Modal Issues in the Safe Transport of Radioactive Material (see item 6.3) fully supported the establishment and scope of the CRP. It is strongly recommended that ICAO be invited to participate in this effort, particularly with regard to making available additional information on accident severity’s and frequencies and that the CRP be initiated as soon as possible (8). The International Air Transport Association through its delegate Mr. N. McCulloch, expressed support for the participation of ICAO in the CRP.

Current issues being considered at the IMO include redrafting the Class 7 provisions in the IMDG Code to reflect the requirements of ST-1, restructuring of the Code to the new UN format and third party liability coverage in the event of an incident.

Mr. O. Kervella, the UN-ECOSOC representative, described the results of the work carried out by the UN-ECOSOC Committee of Experts on the Transport of Dangerous Goods for reformatting the Orange Book into a model regulation. He mentioned that, in parallel, the UN Economic Commission for Europe was also working on the restructuring of ADR and RID regulations which, most probably, will follow the pattern of these model regulations. The ADR/RID class 7 requirements should be revised along the basis of ST-1 and it is to be expected that these new class 7 requirements would
enter into force at the same time as the restructured version of ADR/RID. Therefore, this
date of entry into force will normally depend on the progress made in the restructuring
process, and it could be 1999.01.01, 2000.01.01 or 2001.01.01 or even later. However,
and although no definite decision has yet been taken on this subject, it can be foreseen
that, for reasons of harmonization with other modes of transport, the date of
implementation would be 2001.01.01 or eventually 2000.01.01 with a one year transitional period. The UN-ECOSOC representative also informed TRANSSAC that
UN-ECE is developing in co-operation with the Central Commission for the Navigation
of the Rhine (CCNR) a new pan-European legal instrument (ADN) intended to regulate
the international carriage of dangerous goods by inland waterways. The Class 7
requirements to be included in that instrument will also be based on ST-1.

Mr. I. van Gerwen, representing the European Commission, presented information
on EC transport safety activities, including efforts to improve harmonization of
regulations within the Community, development of a uniform scale for classifying the
severity of transport incidents and future considerations of making mandatory the IMO’s
Irradiated Nuclear Fuel Code. It was noted that timely information concerning transport
incidents would be useful and that the issue would be further considered after work on the
development of the reporting scale is completed.

TRANSSAC strongly supports the Agency's and international transport safety
organizations' efforts to establish a uniform effective date for the introduction of Class 7
requirements based on ST-1 and this date should be 2001.01.01 (9).

TRANSSAC also fully supports the development of stronger liaison and improved
communications between the Agency, the UN-ECOSOC Committee of Experts on the
Transport of Dangerous Goods and the international transport safety organizations (10).

6.3 AGM on "Modal Issues in the Safe Transport of Radioactive Material" -
(Working Paper No. 12)
As Chairman of the Advisory Group Meeting on "Modal Issues in the Safe
Transport of Radioactive Material" (held 10-14 November 1996 at IAEA Headquarters) Mr.
C. Young introduced WP No. 12. Discussions on the deliberations of the AGM led to the
following:

- TRANSSAC notes the usefulness of practical and user-friendly training and guidance
  material and supports any efforts the Agency may be able to make in supporting the
development of these (11).
- TRANSSAC notes that any results from ICAO, IMO, and IFALPA consideration of the
  conclusions of the Advisory Group Meeting on Modal Issues in the Safe Transport of
  Radioactive Material (AG-940) should be taken into account in due course (12).
6.4 PATRAM ‘98
Mr. J. C. Niel provided information on the 12th International Symposium on the Packaging and Transportation of Radioactive Material, being held 10-15 May 1998 in Paris. Participants were invited to note the time schedule for the preparation of papers for the symposium.

7. CSM on Ways for Integrating the Agency's "Regulations for the Safe Transport of Radioactive Material", (Safety Standards No. 1) into the regulations of other International Transport Organizations (Working Paper No. 5)
Working Paper No. 5 was introduced by the Scientific Secretary. Discussions on the integration of the requirements of ST-1 into the regulations of other international transport organizations led to TRANSSAC recommending that:

- in the near time frame, the Agency should proceed with developing a restructured presentation of ST-1 for use in the integration of those requirements into the regulations of the other international organizations (13). It is recognized that some problems may arise which will need to be addressed, such as consistent use of terminology and approaches.
- in the medium time frame, the Secretariat should explore the feasibility of joint sponsorship by the UN and the Agency of the UN’s Orange Book and ST-1 and report back to TRANSSAC on these possibilities (14).
- the long-range option of wider spread integration and joint publication should be considered later as experience is gained in the earlier stages (15).

8. Status report on recommendations made by TRANSSAC I
The "Summary of Taskings and Follow-up From TRANSSAC-I" WP No. 6 was reviewed and TRANSSAC recommended that the Secretariat continue preparing such a summary from one meeting to the next (15).

8.2 Report of the Member States Survey re Transport Data
Working Paper No. 7
The highlights of the discussion regarding results of the Member State survey to determine transport safety data needs (WP No. 7) are as follows:

- The Secretariat should continue maintaining PACKTRAM as currently done (16) and no enhancements are needed at this time but the Secretariat should keep TRANSSAC informed of any trends in Member State requests for enhancements to the database (17).
- Regarding SHIPTRAM (database on radioactive material shipments) a range of opinions were expressed concerning the need for shipment information, its accuracy and potential applications. While there was general agreement on the usefulness of the information, some questions about the practicality of collecting reliable information and the use of the information were raised.
- Regarding EXTRAM (database on radiation exposures resulting from radioactive material transport), discussions covered the difficulty in collecting this information, historical uses of it, and the needs for it.
Regarding EVTRAM (database on accidents and incidents in radioactive material transport) it was noted that the EC is developing an events scale that may be useful in future efforts and that this should be considered at future TRANSSAC meetings (18).

It was concluded that:

- **PACKTRAM should continue as a matter of priority (16).**
- **EVTRAM, EXTRAM, and SHIPTRAM should continue to be pursued through the development of an action plan for each database**, in this order and as resources allow. The action plans should cover how to effectively and efficiently collect the information, consideration of the practicality of data collection, potential uses of the information, frequency of data collection and report publication. The plans of action should be reported to TRANSSAC-III (19).
- **It is recommended that REDTRAM be discontinued (20).** However, the results of the Co-ordinated Research Programs should be published separately (21).


The status of the transport Safety Standards Series publications was reviewed as described in WP No.8. TRANSSAC noted the status and plans for the publication of the documents. Salient points of the discussions are recorded for each of the transport safety publications in the following:

9.1 **ST-1, Regulations for the Safe Transport of Radioactive Material**

Any future review of the Q-system, in particular its radiological criteria, exposure pathways, and dosimetry, should ensure consideration of maritime conditions (22).

9.2 **ST-2, Advisory Material for the Regulations for the Safe Transport of Radioactive Materials**

See discussion under item 10.

9.3 **ST-3, Emergency Response Planning and Preparedness for Transport Accidents Involving Radioactive Material; including interactions with other Agency emergency response guidance activities**

Mr. L. Blalock presented the plans for publication of ST-3. It is recommended that the Transport Safety Secretariat liaise with the other Advisory Committee Co-ordinators to determine if those Advisory Committees wish to review the draft of ST-3 at this stage (23).

9.4 **SS No. 112, Compliance Assurance for the Safe Transport of Radioactive Material**

No actions are needed at this time.

9.5 **SS No. 113, Quality Assurance for the Safe Transport of Radioactive Material**

No actions are needed at this time.
10. Approval of ST-2, the advisory material for ST-1
Working Paper No. 9

The adoption of ST-2 (Working Paper No. 9) was considered with observations that:

- some editorial corrections are needed (a few have already been passed to the Secretariat) (24);
- the references need to be closely checked (by TRANSSAC members and the original contributors) to ensure accuracy in the use of the references (25);
- it is desirable to have verification that the IMO has reviewed the appendix on tie-downs (26);
- co-ordination with RASSAC may be desirable (27); and
- it is desirable to have the final draft available for the ACSS meeting in November 1997 (28).

Recognizing that the ACSS may need to receive the draft approximately one month prior to its meeting, a firm deadline of 30 June 1997 is agreed for the receipt of comments from TRANSSAC members (29). In accordance with the unified procedure for the preparation of Safety Standards Series documents, comments received and the response to the comments (revisions made) will be reviewed by the TRANSSAC Chairman to determine if the draft should go forward to the ACSS or if additional developmental steps are necessary (30). In order to support the thorough review of the document, the Secretariat provided meeting participants with copies of the reports of the Consultants Service Meetings on criticality; tie-down; quality assurance; and peer review of the draft.

11. The Revision Process and recommendations by TRANSSAC Members
Working Paper No. 4 and Information Paper No. 6)

11.1 Improving the efficiency of technical committee meetings

11.2 Reducing the number of meetings

11.3 Democratic accessibility

11.4 TCM-975, Technical Committee Meeting on the Comprehensive Review of
the Transport Regulatory Approach, 2-6 June 1997

The process used to revise the transport regulations (WP No. 4 and IP No. 6) was reviewed and discussed with an overall conclusion that the June 1997 TCM on the Revision Process should be given relatively broad latitude in formulating its recommendations. Since the TCM's recommendations will be considered by subsequent TRANSSAC meetings, it was felt best not to constrain them with unnecessarily restrictive guidance.
The June 1997 TCM on the Revision Process should be requested to:

- review and recommend detailed operating procedures governing TCMs, AGMs and CSMs for submission of papers, deadlines, operating procedures, use of information papers, handling of third party submissions, etc. (31).
- review and recommend the overall sequencing and timing of meetings and any necessary intermediate steps (such as required lead times prior to meetings) for the revision process (32); and
- prepare draft regulatory development and analysis criteria (including criteria for evaluating the justification for changes to the regulations) (33).

In fulfilling its task, the June 1997 TCM is reminded of the need to ensure that the recommended approaches should be consistent with the Agency's unified procedure for developing Safety Standards Series documents (34).

11.5 Review of the overall Transport Safety Programme

Working Paper No. 10

Discussions regarding the overall transport safety program (WP No. 10) resulted in the following recommendations:

- the CSM for restructuring of the ST-1 requirements to support integration into other transport regulations should be held in 1997 (35).
- the 1997 TCM for LSA and SCO (Task 4) should be combined with the 1998 AGM of Task 5; the 1997 TCM should be used to bring together information collection specialists and those involved in the Agency's information collection efforts with the aim of developing the needed action plans for the Agency's transport safety databases (36).
- the transport of large radioactive objects such as nuclear power equipment components (including unpackaged components) should be addressed, including, if appropriate, as part of the CRP on LSA/SCO (Task 4) and in conjunction with Task 5 (37).
- Task 6 - the 1998 AGM should be deferred until the results of the CRPs on modal issues are available for consideration (38).
- WP 10, second page, under Task 7, fourth line, strike-out "in late 1997" and WP No. 8, under item 3, third paragraph, strike-out "at TRANSSAC III" (39).
- the other Tasks in WP 10 were accepted (40).

12. Research and Development

12.1 Report of the European Commission R&D activities

(Working or Information Paper No. 7)

Mr. I. Van Gerwen provided information on the European Commission transport R&D activities for 1997. The Commission received 43 proposals for evaluation. Following ranking of proposals, 15 first priority and 3 second priority proposals have been accepted. Additional funding is being sought to complete all the second priority proposals. Harmonization of the regulations within the EU and ST-1 were the subject of many of the proposals.
TRANSSAC welcomes the initiative of the European Parliament to fund the European Commission’s R&D activities in the field of transport of radioactive material and recognizes the value of the work to the continuous revision process of the IAEA safe transport regulations. However, as expressed by some of the European TRANSSAC members, the efforts will require the continuity of a regular budget for coming years.

12.2 IAEA Co-ordinated Research Programmes
(Information Paper No. 3)
Mr. L. Blalock provided a report on the status of the five current Agency Coordinated Research Programmes. TRANSSAC recommended that:

- the CRP on "Accident Severity During Sea Transport of Radioactive Material" be completed in 1998 (41), and
- the new CRP on "Accident Severity During Air Transport of Radioactive Material" be advanced as planned, particularly including the participation of the ICAO (42).

13. Information Services

13.1 Update on Transport Safety Information Services
(Information Paper No. 4)
TRANSSAC noted the information contained in Information Paper No. 4 on Transport Safety Information Services regarding publication of reports for the PACKTRAM, NCAL and EVTRAM databases. In connection with the EVTRAM database, the Secretariat informed TRANSSAC that it has been requested to provide assistance to EC contractors developing an EC transport events database for the period 1986-1996.

13.2 INTERNET applications
Mr. M. Crick, NSRW, provided a presentation and demonstration of the INTERNET capabilities and plans of the Radiation and Waste Safety Division (including the transport safety pages), which are being developed.

14. Training Activities

14.1 Courses
Ms. K. Burmester, Department of Technical Co-operation, provided a presentation on "Training Courses on Safe Transport of Radioactive Material 1998 - 2001". The overall five year program plan was described, including information on the most recent five training courses and emphasizing future activities and host country responsibilities. In addition to the usual three-week Agency training courses, Ms. Burmester said that it may be possible to organize one-week courses in view of widespread preparations to implement ST-1 at the turn of the century.

Mr. Cottens provided a presentation on the Joint IAEA/EC Course on Safe Transport of Radioactive Material held in Mol, Belgium, 7-24 October 1996. There were 30 participants from 18 countries. The course was a successful exercise for the participants, many of whom represent the transport safety Competent Authority in their country. He shared many of the "lessons learned" from the host's perspective. Mr. Tshuva, Israel, provided comments on the Mol course from the perspective of a participant. Mr. I.
van Gerwen, EC, provided comments concerning the overall satisfaction with the effort for the Mol course and the participation of the supporting countries.

14.2  Training material and strategy

Working Paper No. 13

The report of a Consultants Service Meeting held in December 1996 (CS-123) was discussed. In addition to outlining the contents of a revised training manual, the consultants recommended a series of activities to bring the Agency’s transport safety training in line with ST-1. The training strategy includes the introduction of one-week concentrated courses addressing the requirements in ST-1 to be held in addition to the three-week courses during the few years leading up to the agreed ST-1 implementation date. TRANSSAC strongly endorsed the continuation of the Transport Safety training programme and recommended that:

- the CS-123 recommendations concerning the training material should be adopted (43).
- the CS-123 recommendations concerning one-week training course teaching the overall ST-1 requirements should be adopted, making provisions for such courses to be held in 1999, 2000 and 2001; it was suggested, in particular, that one such course be organized in Africa and presented with English-French translation (44).
- the planned three-week course for 2000 and all three-week courses thereafter should be based on ST-1 (as the modal implementation date approaches, the training emphasis on ST-1 should be increased) (45).
- in revising training material to ST-1, updating the training manual, including visual aids, is the highest priority, followed by information pamphlets and a video film, with seminars and workshops being the lowest priority (46).
- updated training materials should be provided to all past training course participants still working in the field (47).

In addition, TRANSSAC members are requested to submit names of potential contributors to training materials development until 15 April 1997 (48).

15.  Transport Safety Advisory Review Teams (TRANSART)

Working Paper No. 11

- Mr. L. Blalock provided a brief report about the TRANSART programme. The Agency is planning to convene in 1997 a Consultants Service meeting that will involve representatives of developing countries. TRANSSAC noted that a "survey or questionnaire" could be used following the CSM to obtain more information on potential recipient Member State transport safety needs (49), and recommended that:
- the TRANSART programme should be aggressively pursued, including co-ordination with appropriate Agency programmes (50).
16. Radioactive Transport Study Group (RTSG) - (IP 5)

16.1 Mr. C. Young presented information concerning the next RTSG meeting, scheduled 15-17 October 1997 in the Netherlands and hosted by Mr. H. van Halem. This is provisional and will be confirmed after the June TCM. Information Paper No. 5 had been distributed to explain about the RTSG following discussions at TRANSSAC I.

16.2 Mr. M. Cosack presented a discussion on the "Questionnaire on National Regulatory Requirements for the Transport of Radioactive Material" used at RTSG meetings. Use of this form at RTSG meetings reduces the time required for members to provide information concerning the status of their regulatory scheme. TRANSSAC recommends this item be tabled for TRANSSAC III to allow RTSG to provide information concerning the experience and value of the form (51).

17. PATRAM '98
   See discussion under item 6.

18. Other business

18.1 Status of the Waste Safety Convention
   Mr. F. Turvey provided a presentation and update of the draft "Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management". Transport is addressed under Article 25, "Trans-boundary Movement". The Convention acknowledges and reinforces the need for compliance with other conventions and existing regulatory provisions. The final report of the convention will be obtained and distributed to TRANSSAC members (52).

18.2 Transitional arrangements
   Working Paper No. 15
   Mr. J. Lopez-Vietri introduced a discussion of issues related to transitional arrangements. Some of the problems associated with the different dates by Member States for implementation of the Regulations was highlighted. TRANSSAC discussed the possibility of presenting the contents of WP 15 to RTSG for further consideration. The Transport Safety Unit should consider providing an item to the Board of Governors encouraging Member States to adopt ST-1 in an expeditious manner (53).

18.3 New staff member
   The Scientific Secretary announced the appointment of Mr. G. Dicke, Canada, to the Transport Safety Staff. Mr. Dicke, who brings considerable transport safety experience, will join the Transport Safety Unit on 1997.05.12.

18.4 Other
   The chair noted that one TRANSSAC member was absent due to a death in his family.
19. **Chairman's summary**

The contents of this report were developed as the meeting progressed and TRANSSAC had the opportunity to review the items discussed until mid-week. The Chairman and the Scientific Secretary will prepare the full report and distribute to TRANSSAC-II participants on completion. The attachments for this report are the List of Working Papers and the List of Participants.

The meeting adjourned at 13:20h on 1997.03.14.