Report of the

Transport Safety Standards Committee (TRANSSC) - Eighteenth Meeting

29 June – 2 July
IAEA and ACV, Vienna

A. INTRODUCTION
The Eighteenth Meeting of the Transport Safety Standards Committee (TRANSSC) was opened in a joint session on 29th June 2009. A report of the joint session is attached at Annex 1.

B. PROCEEDINGS OF THE MEETING

T1. Opening of TRANSSC session on 30th June 2009.

E.W. Brach, TRANSSC Chair opened the TRANSSC session of the meeting. He informed the meeting of apologies of TRANSSC members and attendees who advised the Secretariat that they would not be able to attend the TRANSSC meeting.

T2. Approval of agenda of the TRANSSC session

E.W. Brach introduced the Agenda, and an amended agenda (Rev 1) for the TRANSSC session is attached at Annex 2.

T3. Further administrative arrangements

J. Stewart introduced the changes to the administrative arrangements and informed members of plans for a TRANSSC member/attendee and spouse dinner on Wednesday evening, July 1.

T4. Report on Actions

T4.1, TRANSSC Actions and T4.2, Report on TRANSSC 17 Feedback

K. Varley provided a summary and status of the actions from TRANSSC 17, and provided a summary of the Secretariat’s action taken to address feedback from TRANSSC members at TRANSSC 17 for improvements in TRANSSC meetings and related activities.

TRANSSC 18 accepted the summaries of actions completed and planned.
T5. Report to TRANSSC on resolution of TRANSSC comments on the BSS (DS379: International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources)

T. Boal gave an update on the BSS development and revisions, in particular focusing on issues raised by TRANSSC. This document was being discussed in RASSC and WASSC in parallel.

He noted that some TRANSSC recommendations had been accepted.

The small quantity exemption values had been retained which would maintain compatibility with TS-R-1.

One issue raised by TRANSSC concerned the list of nuclides in the tables, and the resolution was simply to note in footnotes that there were differences in the proposed revisions to the BSS and TS-R-1. This was noted as a problem for TRANSSC and a request was made to explain why the nuclides could not be the same in both documents.

The secretariat offered to reply to TRANSSC on why the BSS and TS-R-1 radionuclide list could not be the same.

Mr. Boal asked if amendments to the requirements for packaging consumer products had satisfied TRANSSC. He also noted that the issue of controlled areas was dealt with in TS-G-1.3 and may be further clarified with the new format.

Mr. Boal reported that clarification needed to address the issue on exemptions and clearance had been dealt with.

He noted that the issue of optimization of worker/public dose may be more effectively dealt with in a safety guide.

The secretariat agreed to publish the comment resolution table, possibly in August.

Following review of the resolution by TRANSSC the chair will take comments by email as to whether the document is approved to move forward.

T6. Status of Transport standards

N Bruno introduced the status of the safety standards. He noted that TS-R-1 was available on the web, TS-G-1.4 was available on the web and in hard copy. TS-G1.5 was available on the web and had been published in hard copy on June 30, 2009.
The chairman congratulated the committee and the Secretariat on completing
development and finalization of the entire suite of safety standards on transport
(presently publication of TS-R-1 2009 Edition and TS-G-1.6 are pending).

T6.1 Report on Review/Revision process

J.Stewart and F.Nitsche presented a short brief on the current TS-R-1 review and
revision process and enhancements to make more use of consultancy and
technical meetings to address the details of identified issues and other
considerations such as editorial issues, and allow TRANSSC to focus on
decisions needed to support the review and revision processes. The clarity
added by the new flow chart was welcomed. Several comments were made
noting the improved timeliness of the process.

The flow chart and the requested procedure, or quality plan, for the review and
revision process will be made available to TRANSSC.

ACTION Secretariat to provide TRANSSC members a copy of the procedure, or
quality plan, for the TS-R-1 review revision process currently underway,

T6.2 Discussion on process for TRANSSC 19

J.Stewart gave an overview of the immediate work required in preparation for
TRANSSC 19. He asked for advice on the most effective way to conduct the
meetings.

Support was given for combined work on TS-R-1 and TS-G-1.1 to have revisions
of the two documents proceed in parallel as changes to the TS-R-1 requirements
are agreed to by TRANSSC.

Support was given to eliminating the need to discuss editorial issues in
TRANSSC and to have this effort completed by either a consultancy or the
Secretariat with assistance of the editorial staff.

Some support was given to consolidating all comments by paragraph number to
facilitate change review.

Reports of working groups feeding into the process would be of benefit.

T6.3 Discussion requested by CSS on the need for 2 year review and scheduling
of safety guide reviews

E.W.Brach introduced the actions from the April 2009 CSS meeting for the
TRANSSC Chair to discuss with TRANSSC the 1) frequency of review and
revision cycles for TS-R-1, 2) consideration of revising TS-R-1 and associated
guidance documents (e.g., TS-G-1.1) in parallel with TRANSSC decisions to revise TS-R-1, and 3) consideration of revising TS-R-1 to meet the IAEA’s new format for safety requirement documents.

In relation to the frequency of revision of TS-R-1 views were offered:

- Once a revision cycle is started the two-year review cycles should be suspended and restarted two years after publication of the revised TS-R-1.

- The frequency of the publication is currently about correct in view of the effect on industry (four or more years).

- The frequency of update should be based on safety significant concerns only, not on any set times.

- Regulations should not be changed unless there is a real reason.

- We should not start a new two-year review cycle until after the previously approved and published documents are delivered.

- We should consider amendments, such as use of page changes, rather than issuing complete new publications.

- The goal should be to achieve implementation in member states of current editions of TS-R-1, not just publication.

- There is a divergence of opinion as to whether changes in TS-R-1 could be implemented by member states in a 2 – 4 year frequency, but the general view was two years can be achieved by states for air and sea and most for road and rail.

In relation to the scheduling of documents:

- The new process looks about right. There was general TRANSSC agreement that timely issuance of guidance associated with new revisions to TS-R-1 should be developed in parallel and had been facilitated by the secretariat’s process changes implemented in Jan 2009.

Considering the new IAEA format for safety requirements, TRANSSC addressed this topic under agenda item T 14 bis 1.

The TRANSSC Chair stated that he will present a summary of this discussion at TRANSSC 19 and, based on TRANSSC feedback, provide a response to CSS at their October meeting the week following TRANSSC 19.
ACTION TRANSSC Chair to provide a summary of the three CSS actions for TRANSSC consideration at TRANSSC 19.

T6.4 Overview of TM on Regulatory and guidance material

Y.Zhao gave information on the February 2009 Technical Meeting. The meeting had three working groups dealing with TS-R-1, TS-G-1.1 and TS-G-1.2. The meeting produced the working material for the start of the new review cycle, and recommendations on the future of TS-G-1.2. Several ongoing issues were noted and corresponding groups started to address transport of large components, Type C packages, and transitional arrangements.

Two key issues were identified in the changes considered for TS-R-1; namely, one was fissile exceptions and the other was package surface contamination limits.

The decision of the technical meeting was that a staged approach to development of a revised TS-G-1.2 should take place. (see also agenda topic T6.8)

T6.5 TS-R-1 review

Y.Zhao gave background to the 2007 review of TS-R-1 and how the work from that cycle was the basis for the changes posted on the IAEA web to support the current review. He identified the proposed way forward.

There was confusion as to whether ongoing issues were required to be submitted by the 6th July. Clarification was provided consistent with the information posted on the website related to the 2009 review process. The Secretariat clarified that the ongoing issues will not need to be resubmitted for inclusion in the current TS-R-1 review cycle, but that as and when revised text is ready somebody will need to update proposals.

T6.6 New Format for TS-R-1

J.Stewart presented the idea behind the IAEA’s development of the new format for safety requirement documents. There were concerns expressed and it was made clear that change should only be made if it is justified. It was explained that no requirements should be deleted from TS-R-1, but that all that was being requested was the development of an overarching paragraph should be developed.
A copy of the annex from SPESS that describes the new format was made available to working groups (see also agenda topic T14 bis 1).

T6.7 TS-G-1.1 review

N.Bruno provided the background on development of the working material for TS-G-1.1 that conforms with the 2009 Edition of TS-R-1. He explained the markings in the document and that the document is not an IAEA approved document but is provided to TRANSSC for information and possible use as TRANSSC members may choose. He explained the options for taking forward a DPP to support a TS-G-1.1 revision either to match the current published edition of TS-R-1 or the next revision (should such a decision be made in October at TRANSSC 19).

T6.8 TS-G-1.2 review

K.Varley gave details of the outcome of working group 3 from the February 2009 TM reported in 6.4 above. The group came up with a proposed outline DPP suggesting a set of manuals to be generated as lower tier documents which would effectively become a new document. The secretariat is considering whether a DPP to revise and update TS-G1.2 should be presented at TRANSSC 19.

T6.9 TS-G-1.6 review

Y.Zhao presented the update on TS-G-1.6 and informed the committee it had been approved in April by the CSS. He noted that the CSS questioned why the document was so far behind the publication of TS-R-1.

He informed the committee about the concept of e-schedules a non-paper version that Mr. Zhao prepared. He gave a brief demonstration of the concept which was very well received by TRANSSC. Mr Zhao’s work was applauded by TRANSSC.

T7. Review of other safety requirements, guides and DPPs

T7.1 DS371 Safety Guide: Storage of Spent Fuel

P. Metcalf gave an information briefing on the status of the review of DS371. He noted the document had received over 500 comments from Member States and 300 from SSCs. He outlined the links with transport. It would be made available for review on the web, possibly this week. The guide was noted as being beneficial.

There were questions as to whether a similar guide might be appropriate for other long term storage in packages.
A suggestion was made to look at the need for a long term assessment of dry cask storage systems and the stored spent fuel (fuel and cladding effects from high burnup, temperature cycling and potential for fuel reconfiguration) for long term storage and eventual transport.

TRANSSC welcomed the joint discussion of this and other waste management issues between WASSC and TRANSSC.

T7.2 DS44 Safety Guide - Criteria for Use in Planning Response to Nuclear and Radiological Emergencies

E. Buglova gave an update on the development of DS44 and the issues raised by member states. The harmony between ICRP and BSS in the development was identified as very important.

A question was raised by TRANSSC whether a value for sheltering would be useful. This had been in the draft before, but had been removed. It was suggested the decision should be re-considered.

Consistency with ICRP was raised. It was confirmed that ICRP had been involved in the drafting, and they had no issues with the content.

The DS 44 Appendix III on Emergency Action Levels and examples was noted and considered very helpful.

DS 44 was approved for submission to CSS for endorsement

T7.3 DS421 Safety Guide: Protection of the public against exposure to natural sources of radiation including NORM residues

R. Edge presented an information briefing on the outline for DS421. He indicated the safety guide would cover cosmic ray exposure amongst other things.

T7.4 DS408 Safety Guide - Radiation Safety in Industrial Radiography

J. Wheatley gave an overview of DS 408 for approval for submission to CSS for endorsement. It had been to member states for comment. He gave an overview of the document and its preparation. He noted that the only significant change was to insert an Annex with examples of accidents – this text was already published in another document.

In response to comments changes had been made to the draft to improve it, and Mr. Wheatley identified that RASSC had approved the document.
It was agreed that the term “certified” should be removed from para 12.2 and the term “transport complies with regulations” should be extended to “transport and transport package complies with regulations.” With this change, TRANSSC approved the document for submission to the CSS.

T7.5 DS409 Safety Guide - Radiation Safety of Gamma, Electron and X Ray Irradiation Facilities

E. Reber presented DS409. He described the scope, the content and history of the document.

DS409 was approved for submission to the CSS subject to discussion with the transport unit on clarification of the use of the term “operating organization” (p56)

T7.6 DS413 Safety Requirements - Safety of Nuclear Power Plants: Operation

Yury Martynenko provided an information update on DS413. He noted that transport is mentioned in the draft safety requirements document in paragraph 6.50 only.

T7.7 DS414 Safety Requirements - Safety of Nuclear Power Plants: Design

M. Gasparini presented the document, which he noted had limited transport interest. He provided an outline and discussed the background of the document. He also noted that NUSSC has approved the draft for submission to Member States.

DS 414 was approved for submission to Member States for comment

T8. Preliminary information for TRANSSC/WASSC joint session and for working groups

E.W. Brach introduced the background to the 1 July joint meeting of WASSC/TRANSSC and the intention behind this first meeting of the two safety standards committees. Mr. Brach described the work of two consultancies to prepare for this meeting and noted the availability of the background materials on the IAEA web.

J Stewart gave background to the new format working groups.

T9. TranSAS and other tools

J. Stewart gave a presentation on a review of previous TranSAS missions and the Secretariat’s compilation of good practices identified during the missions. He requested that TRANSSC take the generic good practices and review them.

It was suggested a survey of those that had been subject to TranSAS.
Japan offered to present the benefits of TranSAS to the next TRANSSC.

France suggested they were considering requesting a second TranSAS as they found the first so helpful.

Feedback of results in a more active way than simply placing reports on the web was suggested as a better method to broaden awareness and receive valuable feedback.

The use of TranSAS reports to improve training and to be published in a separate document was considered valuable.

**ACTION** – Secretariat to circulate document on good practices of TranSAS missions to TRANSSC members for feedback at the June 2010 TRANSSC meeting.

T10. Denial of Shipment

T10.1 TRANSSC denial Actions

N. Bruno/J Fuller gave an update and status on the International Steering Committee on Denial of Shipment. The importance of regional groups was emphasized as a key tool for dealing with the issue. Targeted efforts were considered important. The concept of central support to distributed targeted actions was explained, so that National Focal Points were being supplied with resources by the regions and the IAEA to assist them in dealing with achievable targeted actions.

The first European Regional Workshop on Denials of Shipment of Radioactive Material convened in Luxembourg, 17-19 June 2009 recommended that the existing Mediterranean Basin Region (in existence since May 2008) be expanded to include the other European countries in a new “Europe and Mediterranean Basin” regional group. This recommendation and a combination of related action plans will be tabled at next the International Steering Committee meeting in 2010 for consideration.

It was agreed that a new circular letter requesting Member States to identify National Focal Points should be issued by IAEA.
T11. Transport databases

K.Varley gave a report on the meeting on database development and outlined the concept explaining the problems collecting data.

The chair deferred the issue for consideration and asked that a topic be added to the agenda for TRANSSC 19 to make a decision on the need to maintain the transport databases by the Secretariat in light of the little input of data by Member States to the database systems.

T12. NORM CRP

K.Varley gave an outline of the current status of the NORM CRP. She outlined the results of the participants to date.

T13. Training (including compliance training)

N.Bruno gave an outline of the activities in education and training related to transport. He covered the standard 2 week training course, including how modules of the training course could be structured to provide targeted training. He ended by describing the training manual developed on compliance assurance and an upcoming July consultancy to finalize the compliance assurance training manual. He invited people to attend a short workshop covering the training material on Weds morning if TRANSSC 18.

T14. Co-ordination and harmonization work

E.W.Brach gave an outline of the recent February 2009 meeting between organisations involved in transport requirement development (the so called inter-agency meeting). The meeting covered issues such as the process for promulgating changes to the respective organizations’ transport standards, methods to coordinate and promulgate emergency changes, conduct of audits, and the process for allowing NGOs to attend, observe and/or participate in meetings. Future interagency meetings are envisioned annually.

T14 bis.1 Feedback on new format

TRANSSC conducted six parallel working groups to assist TRANSSC members in gaining an improved understanding of the IAEA new format for safety requirements documents, and to develop an understanding of the potential impact from such a change. Each working group was assigned one or more sections of TS-R-1 for review and consideration. J Stewart provided a standard set of background materials on the new format for each of the working groups.

Working Group 1 (Sections 1 and 2 of TS-R-1) led by Ms. Vogiatzi
There were few requirements. Perhaps they could be removed since they also occur later in the book.

Should the word “shall” be removed from definitions.

Working Group 2 (Section 3 of TS-R-1) led by Mr. Hughes

This section covers several issues, compliance and non-compliance could be under a new heading “regulatory control”. The rest was similar, except training was an issue that appeared multiple times and could possibly be grouped together.

Working Group 3 (Section 4 of TS-R-1) led by Mr. Hinrichsen

This section covers package classification and it was possible to refocus some paragraphs to achieve a few overarching statements (possibly even one). The exercise was beneficial.

Working Group 4 (Section 5 of TS-R-1) led Ms Glenn

The team had reservations to start with, but once looking through they decided there were some minor gaps. Some paragraphs required reordering to bring similar issues together.

Working Group 5 (Sections 6 and 7 of TS-R-1) led by Mr. Faille

There were items in definitions and elsewhere that related to the work of this group. There may be benefit in merging sections 6 and 7. There was some concern over legal issues.

Working Group 6 (Section 8 of TS-R-1) led by Mr. Whittingham

Seven overarching requirements were identified, and by grouping under these it showed duplication of text and raised questions over some requirements. Harmony with the UN was a major issue. It was considered that changes to requirements and changes to structure at the same time would cause problems.

TRANSSC discussion

Implementation of the transport regulations was identified as the most important consideration, and in this respect harmony with UN Orange Book is considered more important than harmony within IAEA as far as TS-R-1 format is concerned. The secretariat assured TRANSSC that discussions with the UN would be an essential part of this activity to relook at the TS-R-1 format.
The difference between changes of structure was more important than change of format.

The enforceability of overarching requirements was raised – it was suggested they were more philosophy than regulations and would be very difficult to enforce. This discussion led to questioning the value of the overarching requirements.

The direct application of TS-R-1 into national requirements was something that needed to be considered in evaluating the impact on both national authorities but also the regulated industry in the justification of any format change.

The change of format to a scheme that was not compatible with the Orange book was a problem and could lead to denial.

The majority of regulators and industry were not in favour (the users) and the question was raised on the value and the benefit of this considered format change.

The cost of the ripple effect, given that TS-R-1 is already so well used, should be taken into account (training material, guidance material etc).

The chair agreed to report on TRANSSC views to the DDG and to the meeting of the four safety standards committee chairs on 3 July. (Action was completed by the TRANSSC Chair on 3 July.)

T14bis.2 Feedback from joint WASSC/TRANSSC meeting

The chairman suggested the joint meeting should be seen as an initial step in building a relationship with the WASSC committee on matters of interest to both waste management and transportation. The meeting served as a vehicle to develop a way forward for jointly working on issues of mutual interest which might be through a joint group. The secretariat suggested groups should be established based on the issue with appropriate waste and transport experts, rather than a single long term group.

It was agreed to take forward the consideration of a jointly working in small interface groups (subject to WASSC approval) consisting of WASSC and TRANSSC members to address common issues.

T15. Transport Security

A-M Erikson provided an overview of the recent work in transport security. An information paper on transport security had been presented to the UN in Geneva in late June 2009, and was welcomed by many. A working paper with proposed text change would be made to the next UN meeting in November 2009. Ms
Erkson noted that the requirements would need to be at a low common level, with a reference to guidance for those states that might wish to do more.

Three recommendations documents were being developed and all three include transport will be dealt with in a technical meeting next year in the Feb timeframe.

Numerous training courses have been held, and more are being planned. The material has been updated based on feedback and will be made available in all IAEA languages. The two courses to be held this year will be in Germany and Senegal.

An IAEA assessment of individual Member State’s needs is being offered to states to offer enhancements and upgrades of the national programs.

A handbook on verification of legal shipments was being developed and this work would be coordinated with the transport safety unit. The handbook is based on a document prepared by the Russian Federation. This matter will be discussed at a TM in the first or second quarter next year.

Concern over the lowest common level approach was raised since it could lead to dis-harmony in terms of international shipments.

T16. Mini-lecture on Radiation Protection in transport

S.Hughes gave a short lecture on the transport of radioactive material and related this to the BSS and ICRP criteria. Some RASSC and WASSC members joined the audience for this presentation. He gave the history of the development of the limits that are in the transport regulations.

One issue raised was the limited use of segregation tables, and a few questioned the availability of the segregation tables to those in the field who might make use of the tables.

The chair thanked Mr Hughes for his lecture. He also congratulated Mr. Hughes on his retirement and his valuable contribution to TRANSSC and the international transport community.

T17. Inter Agency co-ordination

P.Malesys reported ISO would soon begin work on ISO 7195 on hex cylinders. He would also be providing an update on updates to current ISO reference standards in light of the current review of TS-R-1.

J.Miller reported for ISSPA that they had a recent annual meeting involving the IAEA, and would look to repeat that in future.
T18. Upcoming conferences

V. Ershov informed the TRANSSC of an upcoming transport conference in 29 Sep - 2 Oct 2009 in St Petersburg. The conference would be in Russian with translation into English.

S. Whittingham gave an update on PATRAM 2010. Call for papers would be next week. The meeting would be held in October 2010 at IMO headquarters in London. Exhibition space has been taken and some reserve space had been made available. Mr. Whittingham highlighted new PATRAM 2010 web postings on exhibition space availability and the schedule for submitting proposed papers.

T18bis.1 RTSG

R. Boyle gave brief background information on the Radioactive Material Study Group, it’s purpose, it’s relationship with IAEA and it’s working procedures.

A breakout meeting would be convened toward the end of TRANSSC and a report given to TRANSSC 19

T18bis.2 European Association

S. Whittingham gave an outline of the European Association which now had 19 Member states involved in it’s work. It had several working groups:

- Design for non-CA approved packages
- Dose uptake for drivers
- State Variations
- Auditing

There had been three meetings and the group was very open and working together effectively.

T18bis.3 US/Canada Agreement

K. Glenn gave an outline of the US/Canadian agreement on assessment of B(U) and fissile packages. The guide is aimed at both applicants and reviewers in cases where there was an intent to have approval in both USA and Canada.

The USA/Canadian agreement references the guide and the associated exchange of information and interface between the two parties. The agreement is expected to be signed shortly.
T19. Agenda items for TRANSSC 19

E.W. Brach opened the discussion and the following items were requested in addition to the normal items:

Improving training material and programmes

TS-R-1 Review and associated decision on initiating a new revision cycle for TS-R-1

DPP for schedules (TS-G-1.6), and other associated transport safety guides if TRANSSC 19 decides to initiate a TS-R-1 revision cycle

Transport Databases and decision on whether to maintain or drop the databases

WASSC/TRANSSC common issues to be sent to the joint WASSC/TRANSSC working group(s)

Report from Japan on TranSAS

T20. Report of Meeting

E.W. Brach reviewed the draft report by highlighting the decisions and Actions agreed at the TRANSSC meeting. TRANSSC agreed with the decisions and agreed to review the report within five weeks.

T21. Closure of TRANSSC meeting

E.W. Brach thanked all their active engagement in the TRANSSC meeting, recognized the significant support provided by the IAEA Transport Unit in making the meeting a success, and individually recognized the outstanding administrative support provided by the Conference Clerk and Ms. Hilary Easson.

J. Wheatley closed the meeting on behalf of E. Amaral.