

THE INTERNATIONAL ATOMIC ENERGY AGENCY TRANSPORT SAFETY APPRAISAL SERVICE

G.J. Dicke

International Atomic Energy Agency
P.O. Box 100, A-1400 Vienna, Austria

ABSTRACT

The International Atomic Energy Agency (IAEA) is charged under its Statute to establish standards of safety for protection of health and minimization of danger to life and property and to provide for the application of these standards at the request of States, in the field of atomic energy. The standards concerning the transport of radioactive material are provided by the IAEA Regulations for the Safe Transport of Radioactive Material (the Transport Regulations). A new service with regard to the application of these standards was initiated by the IAEA in December 1998 when it offered to all States the Transport Safety Appraisal Service (TranSAS). This paper provides some background on the establishment of this service, an overview of what is involved in TranSAS and a summary on the status with regard to this service.

INTRODUCTION

The Member States of the IAEA meet once a year at the General Conference (GC) at which they, inter alia, approve the programme and budget, and conduct a wide ranging general debate on the IAEA policies and programme. In recent years the GC has regularly addressed the safety of transport of radioactive material. In September 1997 the GC expressed its awareness of the concerns about the safety of transport of radioactive material and of its importance for the protection of populations and the environment. In September 1998 the GC recognized that compliance with regulations which take account of the IAEA Transport Regulations is providing a high level of safety during the transport of radioactive materials, and requested the IAEA Secretariat to provide a service for carrying out, at the request of any State, an appraisal of the implementation of the IAEA Transport Regulations by that State. The requested transport safety appraisal service was offered to all States by the IAEA Director General in December 1998. TranSAS procedures and guidelines were developed in early 1999 and the service was first applied at the request of Slovenia in June 1999.

TranSAS OBJECTIVES

TranSAS is intended to assist States in improving their transport safety regulatory programmes by providing:

- an appraisal of the State's transport safety regulatory practices with respect to requirements of the IAEA Transport Regulations and related international standards and guidelines; and
- recommendations, as appropriate, in areas where the State's transport safety regulatory programme might be improved.

The objectives of TranSAS will be met through the work of a TranSAS mission which involves sending a team of experts with experience in implementing transport regulations to a requesting State. The mission will be accomplished through various means including:

- assessing the regulatory framework for the safe transport of radioactive material, with particular attention to whether the State's legal framework provides an appropriate set of arrangements for all modes of transport;
- determining whether the transport regulations and regulatory practices are complete and are being implemented effectively by comparing them with current international standards and best practices;
- defining whether adequate steps are being taken by the competent authority to ensure compliance with the Transport Regulations, including assessing its inspection and enforcement activities; and
- reviewing particular aspects of the State's transport regulations and regulatory practices and identifying possible objectives for future improvements.

SEQUENCE OF EVENTS IN THE APPRAISAL SERVICE

The normal sequence of events will generally be as follows:

- submission by a State of a request to the IAEA for TranSAS;
- conclusion of an agreement between the appropriate organization in the requesting State and the IAEA on the terms of reference for the TranSAS mission, including the points of contact for both the State and the IAEA, the schedule, and documentation and information to be provided by the State prior to the mission;
- completion of preparations, which in some cases may involve a pre-mission visit by the member of the IAEA staff who will lead the TranSAS team;
- undertaking the TranSAS mission, which will include detailed discussions with personnel in the requesting State having responsibilities in the transport safety area, review of appropriate documents, and observation of transport activities as appropriate;
- conclusion of the TranSAS mission with an exit meeting based on the preliminary findings;
- submission of the final report to the requesting State, which will normally be within a few months of the end of the mission; and
- release, at the discretion of the State, of the final report for publication.

Details on the steps in this process are as follows:

Submitting a Request –A request for TranSAS should be sent to:

**The Director General
International Atomic Energy Agency
P.O. Box 100
Wagramer Strasse 5,
A-1400 Vienna, Austria**

Following receipt of a request, an IAEA staff member will be appointed as the TranSAS team leader. The host State will be requested to appoint an official TranSAS liaison officer who will work with the TranSAS team leader to define the scope of the service prior to the commencement of the mission.

General Preparations — Preparations for a TranSAS mission will start up to six months prior to the mission, depending on the scope.

Preparations by the requesting State will include:

- compiling and transmitting to the IAEA the relevant documentation;
- informing all relevant organizations in the country of TranSAS mission is to take place;
- ensuring the availability of personnel and facilities required for the review;
- arranging the logistics for the mission, including accommodation and local transportation for the team members, and providing one or more interpreters, as needed, during the mission.

Preparations by the IAEA will include:

- recruiting the TranSAS team;
- providing the TranSAS team with relevant documentation and the TranSAS guidelines; and
- arranging for transport to the requesting State.

Most TranSAS missions will last 1-2 weeks, the duration depending on the scope of the specific mission.

Advance Information — Advance information is required from both parties:

1. To enable the State to prepare effectively for the mission, the Agency will provide the State with the TranSAS guidelines.
2. To enable the TranSAS team to perform effectively, the State will provide the IAEA with relevant information on the transport of radioactive material in the State, including:
 - allocation of related legislative and governmental responsibilities;
 - definition of authority, responsibilities and functions of the Member State's competent authority;
 - organization of the competent authority;
 - copies of the State's transport regulations, guides and any other relevant regulatory documents;
 - process for the assessment of applications for regulatory approval;
 - process for authorizing transport operations and approving transport packages, including examples of documentation on these topics;
 - inspection functions and enforcement activities of the competent authority;
 - emergency planning and preparedness related to transport.

This information should be available in English at least two months prior to the mission.

Pre-mission Communications or Visit — Depending on the scope of the mission, either pre-mission communications by letter, telephone, telefax and/or electronic mail or a pre-mission visit by the TranSAS team leader, will be required. This is needed to ensure:

- the objectives and scope of the mission are clear;

- the team leader is known to the State's liaison officer and other key personnel;
- the team leader is familiar with the State and its transport practices prior to the mission;
- the State clearly understands what is expected during the mission;
- the documentation from the State is provided in a timely fashion; and
- the schedule for the TranSAS mission is agreed.

Representatives of the State's key organizations will be expected to attend meetings with the TranSAS team leader during the pre-mission visit should one be necessary. The pre-mission communications or visit will conclude with an agreement between the TranSAS team leader and the State's TranSAS liaison officer on important aspects of the mission.

Pre-mission Agreement — The pre-mission agreement should address the following:

- the scope of the TranSAS mission;
- the tentative dates of the TranSAS mission;
- the timing of the activities to be carried out by the IAEA and by the State during the period leading up to the TranSAS mission;
- the personnel to be interviewed during the TranSAS mission (it is recognized that it may not be possible to identify all of the individuals in question at this stage); and
- the preliminary timing and venues of the interviews and of any presentations during the mission.

Team Formation — A TranSAS team will usually consist of:

- an IAEA team leader - a specialist with international experience in the transport of radioactive material and the regulation of such transport; and
- up to three additional team members, depending on the scope of the mission, with appropriate expertise in the areas to be reviewed.

Experts will be recruited on the basis of their technical knowledge in the area they will review, their investigative skills, their experience of implementing transport regulations and, where possible, their knowledge of the language of the requesting State.

The Mission — The mission will start with the arrival of the TranSAS team members in the requesting State. The work of the team will begin with an entrance meeting with the head of the competent authority and senior personnel working in the various areas to be covered. This meeting should confirm the scope of the mission, how it will be conducted and how the findings will be reported.

The work done during the mission will include interviewing senior staff of the competent authority and other responsible authorities. Presentations by host State representatives, although not required, may be very useful and could be combined with the interviews. A review of the documents the host State submitted to the Team prior to the mission, as well as documents submitted to the State competent authority by applicants (for multilateral and unilateral approvals of special form radioactive material, low dispersible radioactive material, package designs, special arrangements, shipments and radiation protection programmes); the competent authority's procedures and documents demonstrating the process used to evaluate these submittals; and the competent authority's approval documents.

At the end of each working day, the team leader will convene a meeting of the team to review the collected information, decide which areas need to be examined in greater depth, and adjust the mission schedule if necessary. The team will also meet regularly with the State's liaison officer to discuss progress, identify additional needs, and review the direction of the appraisal. Toward the end of the mission, the team members will formulate a draft of its mission report, including recommendations for improvements. The liaison officer will be provided with an opportunity to review the findings and recommendations based on the information that has been provided to the team. The liaison officer may choose to involve some of the personnel interviewed in his review process. Upon completion of the team's work, and prior to its departure, an exit meeting will be held with the competent authority staff involved to discuss the draft mission report.

The Mission Report — A preliminary mission report will be produced within approximately one month of the end of the mission. It will contain recommendations, together with justifications for the recommendations. It may also contain suggestions as to how the recommendations could be implemented.

The State will then have approximately one month to review the report and identify any inaccuracies. The final mission report will be issued within one month of the receipt by the IAEA of the comments from the liaison officer. The IAEA will ask the State whether the report can be issued as a de-restricted document, so that it can be used for the benefit of other countries.

Follow-up Assessment — A follow-up visit may be arranged if the State would like to have an assessment of its implementation of the recommendations, and if the State requests such a visit. This follow-up visit is likely to be most effective about two years after the mission. Follow-up visits will also help the IAEA to determine the effectiveness of the TranSAS programme.

STATUS CONCERNING TranSAS

The first TranSAS was requested by Slovenia. It was completed in June 1999. The report of the mission was de-restricted and made available to the General Conference in September 1999. Further requests for TranSAS have been received from Brazil, Turkey and the United Kingdom. The pre-mission visit to Brazil has been completed and the mission is expected to be carried out in December 2001. Pre-mission visits to Turkey and the United Kingdom are tentatively scheduled respectively for October and December this year. The missions are expected to be completed in 2002.

CONCLUSION

The General Conference in September 1998 requested the IAEA to provide a service for carrying out, at the request of any State, an appraisal of the implementation of the IAEA Transport Regulations by that State. The IAEA offered the service, known as TranSAS in December 1998. Procedures and guidelines were developed in 1999 and are summarized in this paper. The General Conference in September 1999 noted with satisfaction that TranSAS had been established and had been carried out in one IAEA Member State. The General Conference in September 2000 commended those Member States which have already

made use of TranSAS and encouraged other Member States to avail themselves of TranSAS with a view to achieving the highest levels of safety during the transport of radioactive material.