

REVIEW AND REVISION OF THE IAEA TRANSPORT REGULATIONS

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SUMMARY

The Regulations for the Safe Transport of Radioactive Material issued by the International Atomic Energy Agency (IAEA) have been an important factor in achieving an excellent world-wide safety record for the transport of radioactive material. In order to support maintaining this excellent safety record there is a recognised need to keep these regulations up to date through review and revision, taking into account the latest radiation protection principles and technological developments in the transport and packaging of radioactive material. The 10 year review and revision process which led to the 1996 edition of the IAEA transport regulations was put into place shortly after the 1985 edition had been completed.

The IAEA transport regulations have developed and matured with each new edition. The requirements for review and revision of the regulations have evolved accordingly. It was recognised that the review and revision process should be re-evaluated following the publication of the 1996 edition.

Proposals for improving the review and revision process were discussed at IAEA meetings of the Transport Safety Standards Advisory Committee in 1996 and 1997. A Consultant Services Meeting in February 1997 produced a general framework for an improved process and a Technical Committee Meeting in June 1997 developed further details. The Technical Committee Meeting addressed the overall sequencing and timing of meetings, any required intermediate steps, criteria for justifying, developing and analysing changes to the regulations and the consensus approach for making changes.

This paper will provide an overview of the improved review and revision process which has been recommended by the June 1997 Technical Committee Meeting.

INTRODUCTION

The transport regulations have been very effective in providing a high level of safety and have reached a relatively mature state. Continued review and revision of the regulations helps to ensure that this high level of safety is maintained and that the regulations remain up to date with other developments in the transport of dangerous goods. Results from ongoing research and development with regard to transport requirements as well as ever increasing experience from ongoing transport practises need to be taken into account with each revision.

In addition there may well be specific issues which must be considered in more detail. For example, the Diplomatic Conference on the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management which was held in Vienna, September 1997, adopted a resolution to keep under review the existing rules and regulations with respect to the safety of the transboundary movement of spent fuel and radioactive waste. New issues may periodically be identified which must be addressed to ensure continued confidence in the level of safety provided by the regulations.

A re-evaluation of the review and revision process was initiated soon after the IAEA Board of Governors approved publication of the 1996 edition of the IAEA transport regulations. A general outline of the process which led to the 1996 edition will be given prior to describing the review and revision process recommended by the June 1997 Technical Committee Meeting.

THE REVIEW AND REVISION PROCESS WHICH LED TO THE 1996 EDITION OF THE IAEA TRANSPORT REGULATIONS

Following the issue of the 1985 edition of the Transport Regulations a review and revision process was adopted which had several built-in features. The overview role of the review and revision process would be with a senior transport safety advisory committee which at that time was the Standing Advisory Group on the Safe Transport of Radioactive Material (SAGSTRAM). A ten year revision cycle was adopted in order to provide stability and to allow sufficient time to address major issues. Member States and International Organisations were provided with an opportunity to comment at an early stage on regulatory proposals and to participate in regular REVIEW PANEL meetings and REVISION PANEL meetings to consider proposals for minor changes, changes of detail and major changes to the regulations and related changes to the support documentation such as advisory material, explanatory material and Schedules.

The recommended revised transport regulations which resulted from these meetings were approved for publication by the IAEA Board of Governors and culminated in the 1996 Edition of the Regulations for the Safe Transport of Radioactive Material. When the Board of Governors approved this 1996 Edition they also observed the need for review and revision cycles to continue.

The experience with the ten year review and revision process included good participation of Member States and International Organisations in areas of major change and strong support for accepting the major changes as improvements to the regulations. At the same time it was realised that the process had areas where improvement might be realised. For example, it was felt that the ten year cycle had provided some constraints in completing the work on all major issues by a set deadline while at the same time addressing all of the issues which had accumulated during the ten years of the cycle. A need was recognised to re-evaluate the overall process and where possible recommend improvement with regard to:

- the sequencing, timing and type of meetings and the related operating procedures with regard to submission of papers, deadlines etc.

- criteria for regulatory development such as criteria for evaluating the justification for changes to the regulations.

Since IAEA transport regulations are published as an IAEA Safety Standards Series document, any proposals or recommendations for changing the review and revision process also need to be consistent with the unified procedure which had been adopted for developing Safety Standard Series documents.

DEVELOPING THE NEXT REVIEW AND REVISION PROCESS

At the present time the primary advisory role in the development and revision of the IAEA transport safety standards is with the Transport Safety Standards Advisory Committee (TRANSSAC) which is a standing body of senior regulatory officials with technical expertise in radioactive material transport safety. TRANSSAC is quite similar to the Committee which was formerly known as SAGSTRAM. The first TRANSSAC meeting was held from 26 February - 1 March 1996. At that meeting it was agreed that recommendations on improving or modifying the review and revision process should be prepared by a Consultant Services Meeting (CSM) for consideration by the next TRANSSAC meeting.

The Consultant Services Meeting was held 10 - 14 February 1997. This meeting recommended a framework for an improved review and revision process, taking into account the comments received from various member States.

The second TRANSSAC meeting which was held 10-14 March 1997, recommended that a Technical Committee Meeting (TCM) be held to further develop the recommendations from the CSM. This TCM was held in Vienna 2 - 6 June 1997. Sixteen Member States and two international organisations participated at this meeting. This TCM developed recommendations for an improved review and revision process. The process recommended by this TCM will be further discussed in this paper.

THE RECOMMENDED REVIEW AND REVISION PROCESS

The recommended review and revision process as developed by the TCM of June 1997 has much in common with the process which had led to the 1996 Edition of the IAEA transport regulations. A major difference is in the duration of the review and revision cycle. A 2-year cycle rather than a ten-year cycle has been proposed. The 2-year cycle involves two TRANSSAC meetings and one Revision Panel meeting. The proposed process would allow publications at 2-year intervals to match the revision cycles of other international dangerous goods regulations. The proposed process can be divided in 4 phases, divided by the major meetings as follows:

Phase A: Beginning of the review and revision cycle to the end of the first TRANSSAC meeting involved in the cycle

Phase B: End of first TRANSSAC meeting to the end of the Revision Panel meeting

Phase C: End of Revision Panel meeting to the end of the second TRANSSAC meeting involved in the same cycle

Phase D: End of second TRANSSAC meeting to publication

This complete process takes more than 2 years, however, some overlap at the beginning and the end of each cycle would make it possible to achieve publication of corrections, amendments or revisions at 2-year intervals.

Phase A: Beginning of the review and revision cycle to the end of the first TRANSSAC meeting

The proposed review and revision process starts with a request from the Secretariat to all Member States and interested International Organisations for suggested changes to the transport regulations. Any proposed change is to be presented with justification for the change and an indication whether the change is considered a "minor change", a "change of detail" or a "major change". These three types of changes and the general process to deal with them are consistent with the rules established by the Board of Governors in September 1972 when they approved the 1973 Revised Edition of the IAEA transport regulations.

Minor changes are essentially limited to editorial corrections of typing errors, spelling mistakes and translation corrections. Minor changes must not require a change in the numbering of the regulations. Minor changes result in **corrected regulations**.

Changes of detail are limited to changes in the text but only in so far as to make a previously agreed meaning or intention of a provision more clear or more readily interpretable, or to correct minor technical errors. Changes of detail must not require a change in the numbering of the regulations. Changes of detail result in **amended regulations**.

Major changes include all changes that do not qualify as either minor change or change of detail. Major changes result in **revised regulations**.

Minor changes may be proposed as errata or as corrected regulations. Other changes must be proposed in the form of draft amended or revised regulations.

Proposed changes received by the Secretariat as a result of its requests are compiled together with proposed changes which are recommended by ongoing IAEA Co-ordinated Research Programmes and by IAEA sponsored TCMs, CSMs or Advisory Group Meetings.

The Secretariat sends the compiled proposals to Member States and International Organisations for review and comment. The compiled proposals for changes, together with any working papers which may have resulted from the review and comments are then reviewed at the first TRANSSAC meeting in the review and revision cycle.

The first TRANSSAC meeting in the review and revision cycle is responsible for the following actions:

1. Decide to either
 - endorse proposals for further consideration in the review and revision process, or

- request further consideration of proposals by a Technical Committee, Consultants Meeting or a Co-ordinated Research Programme, or
 - reject proposals on technical or other grounds such as insufficient justification for the change.
2. Confirm or reclassify the endorsed proposals as either
- minor change, in the form of specific errata or corrected regulations,
 - change of detail, in the form of amended regulations, or
 - major change, in the form of revised regulations.

Phase B: End of first TRANSSAC meeting to the end of the Revision Panel meeting

The revision process then proceeds in one of three ways dependent on the endorsed change being a minor change, a change of detail or a major change.

Minor changes

Minor changes endorsed by TRANSSAC in the form of specific errata or corrected regulations do not require any further consideration by a panel of experts. Their endorsement by TRANSSAC represents approval of the specific errata or corrected regulations. The list of errata or corrected regulations is forwarded to the Revision Panel for their information only. The specific errata or corrected regulations could be published immediately. If not published immediately then they are also forwarded to the next TRANSSAC meeting at which time they will be included in a package of all approved changes to the regulations recommended for the next publication.

Changes of detail

Changes of detail endorsed by TRANSSAC are sent to Member States and interested International Organisations who will be given 90 days to comment on these proposed changes in the form of amended regulations. Any comments made by the Member States or International Organisations must be taken into consideration by the Revision Panel.

With regard to proposed changes of detail in the form of amended regulations which have been endorsed by the Member States and International Organisations, the Revision Panel must review these changes for consistency within the total package of regulations. If confirmed as consistent then the amended regulations will be forwarded to the next TRANSSAC meeting for their approval.

If the Revision Panel decides that significant changes are required for consistency then they may prepare revised amended regulations which can be sent for another 90 day review by Member States and International Organisations prior to submission to the next TRANSSAC meeting. Alternatively the Revision Panel may recommend review by experts for possible resubmission of the proposed changes in the next review and revision cycle.

With regard to changes of detail which as a result of comments from Member States or International Organisations cannot be considered as endorsed, the Revision Panel may revise the proposed amended regulations on the basis of the comments. If their revision is significant then the revised amended regulations must be sent for another 90 day review by Member States and International Organisations prior to submission to the next TRANSSAC meeting. Alternatively the Revision Panel may recommend review by experts for possible resubmission of the proposed changes in the next review and revision cycle.

Major changes

All proposals for major changes which have been endorsed in principle by the first TRANSSAC meeting in the review and revision cycle will be circulated by the Secretariat to Member States and International Organisations for their review and comment. Comments will be compiled by the Secretariat and reflected in Working Papers for the Revision Panel, together with the proposals for major change.

With regard to proposed major changes the Revision Panel has the responsibility to provide the technical review.

For the major changes which the Revision Panel endorses, it prepares or confirms the required revised regulations.

For the major changes which the Revision Panel does not endorse it prepares comments together with recommendations for any follow-up it considers appropriate.

Phase C: End of Revision Panel meeting to the end of the second TRANSSAC meeting

The Secretariat prepares a summary of revised regulations for the major changes as endorsed by the Revision Panel together with a summary of any amended regulations for changes of detail which were revised by the Revision Panel. The combined summary is circulated to the Member States and International Organisations, allowing them 120 days for review or only 90 days if only changes of detail are involved.

Comments from the Member States and International Organisations are compiled by the Secretariat and must be considered by the next TRANSSAC meeting together with a complete summary prepared by the Secretariat of all errata, corrected, amended and revised regulations.

This complete summary, together with the comments from the Member States and any working papers is mailed to TRANSSAC members, allowing them 30 days for review prior to the second TRANSSAC meeting in the review and revision cycle.

The responsibilities of TRANSSAC at their second meeting in the review and revision cycle include approval of the complete set of changes to the regulations which it will recommend for publication.

At their first meeting in the review and revision cycle TRANSSAC had already approved any corrections in the form of errata or corrected regulations for minor changes. TRANSSAC can now approve the amended regulations for changes of detail

which were endorsed by the Member States, International Organisations and the Revision Panel. At this meeting it can also approve the revised regulations for major changes which were prepared or endorsed by the Revision Panel and then reviewed by the Member States and International Organisations.

TRANSSAC still has the option to request further work by consultants or a Technical Committee with regard to any revised regulation for a major change. If that happens then the related proposal must be resubmitted in a future revision cycle for the required assessment by the Revision Panel and review by the Member States and International Organisations.

TRANSSAC also still has the option to reject any of the proposed regulations for a major change.

Phase D: End of second TRANSSAC meeting to publication

If there are no major changes, and therefore no revised regulations, involved in the changes to the regulations approved at the second TRANSSAC meeting in this review and revision cycle then the package of all the approved changes is submitted to the Director General with the recommendation that he authorises publication. Such publication could be in the form of a list of errata or corrected regulations if only minor changes are involved. If amended regulations for changes of detail are involved then publication could be either in the form of a summary of the amended regulations or an amended version of the current edition of the regulations.

If there are major changes, and therefore revised regulations, involved in the changes to the regulations approved at the second TRANSSAC meeting in this review and revision cycle then the package of all the approved corrected, amended and revised regulations must be provided to the Advisory Commission for Safety Standards (ACSS) for their endorsement prior to submission to the IAEA Board of Governors for their approval for publication. When major change is involved then the publication must be in the form of a revised edition of the regulations. A revised edition may involve renumbering of the regulations.

IMPROVEMENTS WITH THE RECOMMENDED REVIEW AND REVISION PROCESS

The recommended review and revision process needs to be endorsed by TRANSSAC before it can become operational. The next TRANSSAC meeting will be held in May 1998.

The 2-year cycle of the recommended review and revision process offers some significant advantages over the ten year cycle which has been used previously.

- With the 2-year cycle a major change does not have to wait an additional 10 years if it is not ready at the time when approval for publication is recommended. It can come into a revised edition at any 2-year interval. It should be recognised that not every 2-year publication is expected or required to be a revised edition to reflect major change. Indeed it is expected that most of the changes will be minor changes

and changes of detail requiring only publication of a list of errata, a summary of amended regulations or an amended version of the same edition.

- A 2-year cycle prevents accumulation of minor changes and changes of detail.
- A 2-year cycle is more in line with the revision process for other international dangerous goods transport regulations.

In summary, a 2-year cycle will help to keep the regulations up to date, provide for flexibility with regard to any major change and be in line with the revision process for other international dangerous goods transport regulations.