



SOME VIEWS ON THE TWO-YEAR REVIEW/REVISION CYCLE OF THE IAEA „REGULATIONS FOR THE SAFE TRANSPORT OF RADIOACTIVE MATERIAL“

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INTRODUCTION

The „Regulations for the Safe Transport of Radioactive Material“ of the International Atomic Energy Agency (IAEA), Vienna were last issued as a complete revised edition in 1996 as Safety Standards Series No. ST-1 [1]. A modification to this edition was made in 2000 – only in English – incorporating minor editorial corrections published as Safety Standards Series No. TS-R-1 (ST-1, Revised). Issues in French, Russian and Spanish followed shortly.

A continuous review/revision process of the transport regulations was initiated in 2000 to publish an amended or a revised edition every two years.

This two-year review cycle has been established to harmonise it with the review cycles of the other United Nations dangerous goods regulatory bodies, namely

- the UN Committee of Experts on the Transport of Dangerous Goods, Geneva
- the International Civil Aviation Organisation (ICAO), Montreal
- the International Maritime Organisation (IMO), London and
- the United Nations Economic Commission for Europe (UN-ECE) – Inland Transport Committee, Geneva.
- Intergovernmental Organisation for International Carriage by rail (OTIF), Bern.

These bodies are responsible to issue the regulations for the transport of all classes of dangerous goods (where the class 7 is “Radioactive Material”), for the international air transport (ICAO), for the international maritime transport (IMO) and the European road, rail and inland waterway transport (UN-ECE, OTIF).

The regulations of the above mentioned bodies have been published for many years within a two year period with good experience. Since 2000 the IAEA has been using the two-year cycle also. Based on this relative short time of application first experiences with this two-year cycle will be discussed.

HISTORICAL DEVELOPMENT

The IAEA first published the “Regulations for the Safe Transport of Radioactive Material” as Safety Series No. 6 in 1961.

Subsequent reviews resulted in five comprehensive revisions published in 1964, 1967, 1973, 1985 and 1996.

In approving the first revision in 1964, the IAEA Board of Governors authorised the Director General to recommend to Member States and international organisations that the Regulations be taken as the basis for corresponding national and international regulations.

By 1969, the Regulations had been adopted by almost all international organisations concerned with transport of radioactive material and used by many Member States for their national regulations.

These former review/revision cycles were not based on a ten-year cycle, but the amendments/new editions were published in a 3, 6, 12 and 11 year period.

ASPECTS OF THE TWO-YEAR CYCLE

A big advantage of the two-year cycle is that it allows to react immediately to changes in transport operations, latest administrative, technical and scientific developments as well as operational experiences and new perceptions in all fields concerning the transport of radioactive material.

Practical problems can be solved in a shorter time period than in the past.

One example is the introduction of the "Non-compliance" paragraph as an reaction of the problems with the contamination in spent fuel transports in Europe in the 90ies. Another example is the quick solution concerning the different labelling procedures for an international transport due to different approval practices of the competent authorities in various countries.

Also the experiences from other classes of dangerous goods, e.g. all the provisions for training, could be included quickly also in the regulations for the transport of radioactive material.

On the other hand, the stable framework of regulatory requirements is questioned by applying a two-year cycle. But the stability is taken into account through the kind of publication of the new regulations: as an amended version or a new edition. Only when safety related changes have to be made (e.g. introduction of Type C packages) a new edition is necessary. Otherwise transitional arrangements in particular for package approval are introduced to provide for stability.

Figure 1 shows the process for the review of the TS-R-1 1996 Edition (As Amended 2003) and the implementation into the UN "Orange Book", 13th revised edition [2] and also into the binding regulations for the national and international modes of transport.

This figure shows that the TS-R-1 Edition 1996 (As Amended 2003) was published very late, just in July this year. It led to the fact, that the international modal organisations ICAO and IMO as well as both the Intergovernmental Organisation for International Carriage by rail (OTIF), Bern and the Economic Commission for Europe (ECE) - Inland Transport Committee, Genf, which are issuing the European Agreements concerning the International Carriage of Dangerous Goods by Rail and Road couldn't refer to the TS-R-1, Edition 2003 directly and as a consequence they had to state in their regulations:

"These standards are based on the IAEA Regulations for the Safe Transport of Radioactive Material (1996 Edition, Revised) (TS-R-1 (ST-1, Revised)), IAEA, Vienna (2000) with the amendments adopted by the IAEA up to 2002."

The appropriate reference to the TS-R-1 (As Amended 2003) was not possible due to their delayed publication, which may lead to confusion in practical application.

The most important aspect within this process is the compliance with the time schedules and the corresponding target dates for publication by IAEA and UN (see Figure 1).

The results and documents of the two Review Panels and the two TRANSSC-meetings were on time, but the delayed procedure within the IAEA to approve the TS-R-1 by all involved bodies led to difficulties.

Only clear and well structured procedures during the whole process and the fulfilment of the target dates for publication guarantee an effective and world-wide harmonised implementation of the IAEA transport regulations.

The aim should be the parallel publication of the IAEA Transport Regulations TS-R-1 and the new revised edition of the "Orange book".

Another important item for the Member States and the International Organisations concerns the quality of new proposals for changes to the IAEA transport regulations. Only very well justified proposals should be submitted to the review process and this must be done in time that means within the target dates of the whole process.

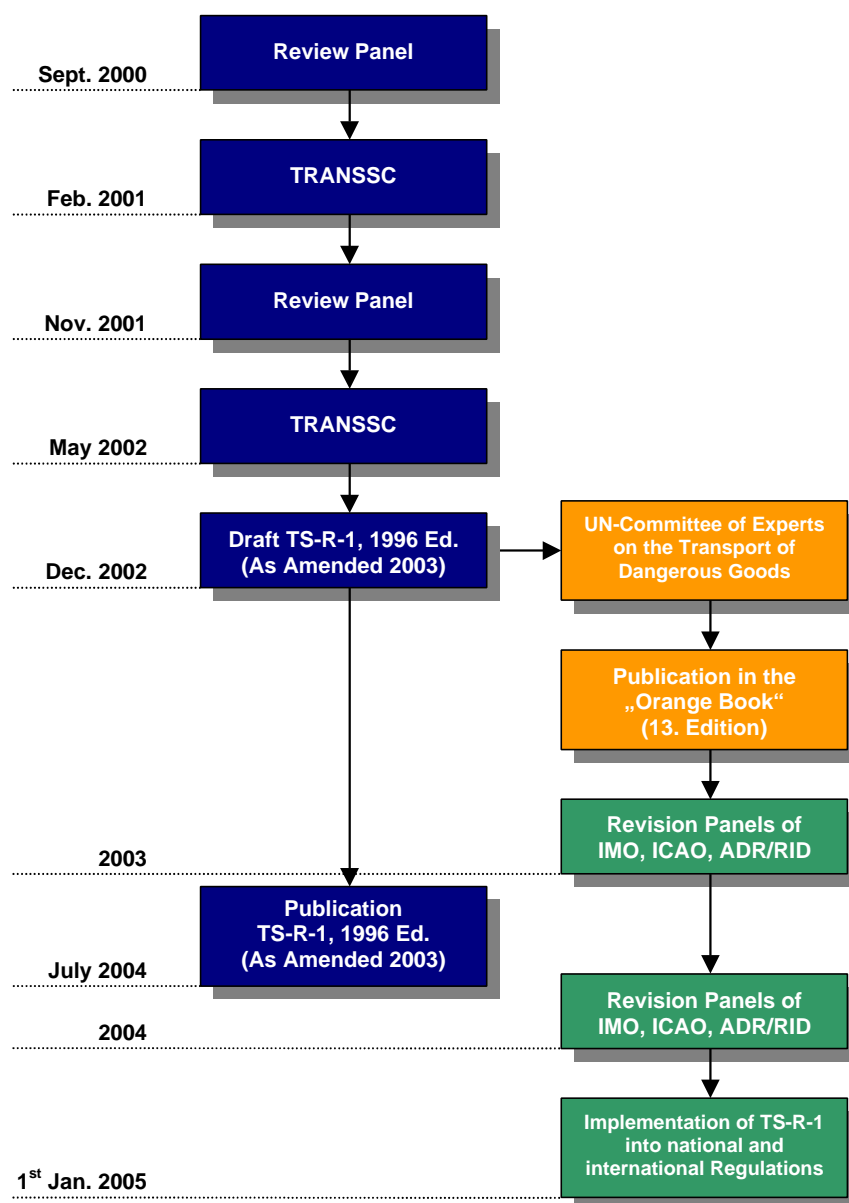


Figure 1. Process of Review and Implementation of the TS-R-1, 1996 Edition (As Amended 2003)

EXPERIENCE WITH SCHEDULES OF REQUIREMENTS FOR THE TRANSPORT OF SPECIFIED TYPES OF RADIOACTIVE MATERIAL CONSIGNMENTS

A further problem of harmonisation with the UN “Recommendations on the Transport of Dangerous Goods” and the regulations of the various transport modes is the question how to deal with the Schedules?

For convenience, the requirements to be met for the transport of specified types of consignments are included in an abbreviated form as Schedules in the publication of the TS-R-1 (see foreword to [1]).

Due to the restructured format of the UN-Model Regulations “Recommendations on the Transport of Dangerous Goods” – the so called “Orange Book” – which has been adopted by all international modal organisations for the

transport of dangerous goods, the Schedules are not any more an integral part of the modal regulations from the 1st January 2005 on.

As stated in the preface of schedules the IAEA Schedules reproduce some of the provisions of the Regulations and do not contain any additional requirements. And furthermore, in the case of any discrepancies between the Regulations and the Schedules, the requirements in the Regulations apply.

For all these reasons, Germany recommends by a proposal for the next review process of the TS-R-1, beginning in September 2004, to delete the Schedules from the TS-R-1 without compensation.

SUMMARY AND CONCLUSIONS

After 4 years of experience with the new two-year cycle of the IAEA Regulations for the Safe Transport of Radioactive Material it is summarised that pros and cons exist for the different users.

The harmonisation and assimilation with the UN Model Regulations concerning the transport of all nine classes of dangerous goods brings the class 7 "Radioactive material" in line with the other classes for a worldwide implementation into the national and international modal regulations.

The new cycle gives a permanent possibility to react on insufficient, unclear and inadequate provisions. To guarantee stability of the regulations all new proposals for changes have to be well justified and implication on transitional arrangements must be shown.

It is necessary to have a timely harmonised publication of both the IAEA Regulations and the UN Model Regulations ("Orange book"). It will guarantee also in the future the leading role of the International Atomic Energy Agency in the further development of all aspects concerning the safe transport of radioactive material based on their competence on radiation protection.

Clear and stable procedures of the review process itself in compliance with the target dates can further ensure a high level of safety standards in transport.

Based on the above mentioned conclusions the continuing of the two-year cycle for reviewing the IAEA transport regulations is supported.

REFERENCES

- [1] Regulations for the Safe Transport of Radioactive Material, 1996 Edition, International Atomic Energy Agency, Vienna 1996
- [2] Recommendations on the Transport of Dangerous Goods, Model Regulations, Thirteenth revised edition, UNITED NATIONS, New York and Geneva, 2003