

Ms Eliana Amaral, Director, Division of Radiation, Transport and Waste Safety, Department of Nuclear Safety and Security, IAEA Review of IAEA's Basic Safety Standards

The statutory objective of the IAEA is to seek “to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world”. To pursue this objective the IAEA has several statutory functions inter alia to “**establish or adopt**, in consultation and, where appropriate, in collaboration with the competent organs of the United Nations and with specialized agencies concerned, **standards of safety** for protection of health and minimization of danger to life and property (including such standards for labour conditions), **and to provide for the application of these standards** to its own operations as well as to the operations making use of materials...made available by the IAEA...at the request of parties...at the request of a State...in the field of atomic energy” .

The statute came into force in 1957 and the first Basic Safety Standards on radiation safety was published in 1962. A resolution of the Board also stated in 1960 “the Agency’s basic safety standards will be based, to the extent possible, on the recommendations of ICRP”. Therefore, the subsequent revisions of the BSS followed the development of the new ICRP recommendations. The role of the IAEA safety standards to improve safety worldwide is a fact and has been enhanced since the approval in 1996 of the International Basic Safety Standards, BSS, co-sponsored by six International Organizations. National legislation of IAEA Member States is usually based on or consistent with BSS.

Therefore the current paradigm for the development and establishment of radiation safety standards is presented in Figure 1.

In March 2004 the Board approved the Action Plan for the Development and Application of IAEA Safety Standards (GOV/2004/6). This action plan requires the Secretariat to complete the development of a corpus of thematic and facility specific safety standards. It also requires a process for the periodic review of safety standards. It suggested that typically, safety standards should be reviewed every 5-6 years to determine whether and when they need to be revised. The process should take account of any relevant technical and scientific developments, together with information on their use and other feedback from users. In

view of the fact that the BSS were completed in 1994 and the first Safety Guide prepared under it was published in 1999, a review clearly should be undertaken.

At its meeting in November 2004, the Commission on Safety Standards requested the IAEA Secretariat to prepare a Document Preparation Profile for the review and revision of the International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources (BSS). In response, with the help of consultants, the Secretariat prepared a policy and strategy paper for the review and revision of the BSS taking into account:

- The vision and strategy for the IAEA safety standards presented to the Board of Governors as Annex II to 2003/Note 4 in March 2003 and the Nuclear Safety and Security Department’s Integrated Safety Approach;
- The overall structure for the safety standards as reviewed by the Commission on Safety Standards in June 2003 and presented to the Board in September 2003 as GOV/INF/2003/15-GC(47)INF/4.

This was discussed by both of the Committees RASSC and WASSC, by cosponsors and by the IAEA Secretariat, and there was a general agreement to initiate with a BSS review process. This was approved by CSS together with a Work Plan for the review process.

In support of this review proposal, RASSC Members noted resolution (GC) made at the September 2005 General Conference which ‘encourages the Secretariat to undertake a review of [the International Basic Safety Standards for Protection against Ionizing Radiation and the Safety of Radiation Sources], taking account of developments in radiation protection, knowledge and guidance, including, to the extent possible, the advice and information provided by the International Commission on Radiological Protection (ICRP) and the reports of the United Nations Scientific Committee on the Effects of Atomic Radiation’.

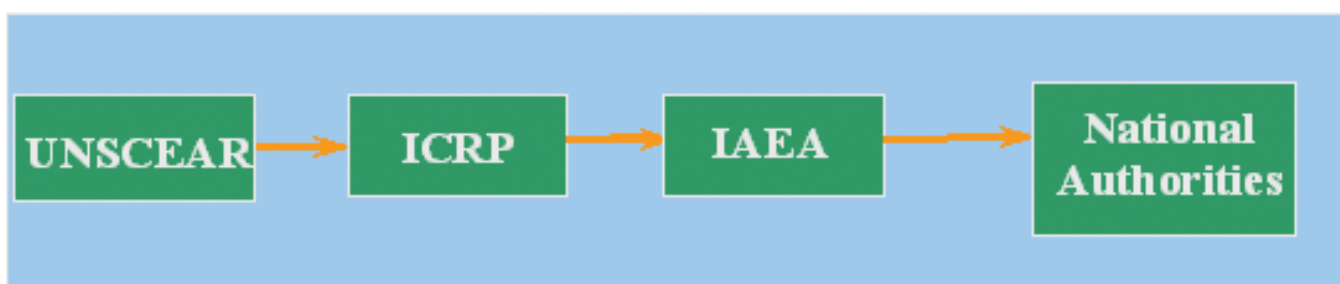


Figure 1

The Review Process

The work plan had the objective of completing a comprehensive review of the BSS before the end of 2006 and developing a DPP. The Secretariat then set up a number of consultancies to prepare papers on various topical areas of the BSS for discussion, and all Safety Standards Committees were kept informed. In addition, steps were undertaken by the Agency to set up the BSS Secretariat¹, involving current and potential cosponsors of the BSS.

The RASSC-WASSC meeting in April 2006 concluded that, while there was no major issue requiring urgent revision, there is a case to be made for the revision of the BSS in order to take account of the many improvements that have been suggested. There is also a need to link a revised BSS to the new Safety Fundamentals and to take account of new ICRP recommendations.

It was also noted that care should be exercised in undertaking the revision to restrict substantive changes to those that are regarded as justified, as revision could lead to significant costs for Member States and for the Agency. At a meeting in May 2006, the BSS Secretariat concurred with the views of the committees regarding the desirability of revising the BSS.

In order to proceed with the revision, the latest knowledge and experience will be reflected in a DPP being prepared for submission to RASSC and the other Safety Standards Committees for review and endorsement at their September/October 2006 meetings. The DPP will then be submitted for approval by the CSS at its meeting in November 2006.

It is essential that the comprehensive character of the BSS be retained in this revision. The process should fully involve the current and potential cosponsors of the BSS and all of the IAEA Safety Standards Committees. Cosponsorship by key international organizations is crucial in ensuring the broadest possible implementation of the standards.

It also requires that the BSS should include all relevant basic requirements and radiological protection criteria across the spectrum of exposure circumstances, in order that other Safety Requirements that cover related areas that may not be individually cosponsored, have a pedigree that is traceable to the BSS and that satisfies the expectations of the cosponsoring organizations (see *Figure 2*).

A revised BSS should provide the necessary linkage between the new Safety Fundamentals and the detailed thematic requirements for and guidance on radiation safety published in the Safety Standards Series. This is particularly important in view of the fundamental nature of the BSS, which is recognized as underpinning approaches to radiation safety in all areas, including medicine, general industry, nuclear industry, radioactive waste management and transport.



Figure 2

¹ The BSS Secretariat has been established and is led by the IAEA to facilitate the participation of cosponsoring and other international organizations in the process of revision of the BSS. It includes representatives from FAO, IAEA, ILO, OECD/NEA, PAHO, WHO, and the European Commission, together with observers from ICRP and IRPA. ICAO, IMO and UNEP have also been invited to participate.