IAEA
International Atomic Energy Agency
Atoms for Peace and Development

Commission on Safety Standards
55th Meeting
28 to 30 May 2024

Agenda Item 3.3

Radiation Safety Standards Committee, RASSC

H. Ogino, Chairperson
O. Guzmán López-Ocón, Scientific Secretary

9th term of RASSC (2021-2023)

- 65 MS (9 MSs corresponding Members), 16 international organizations
- 6 biannual meetings (RASSC-50 to RASSC-55)
  - ✓ Two joint meetings:
    - 1 with EPReSC
    - 1 with WASSC
  - ✓ Two meetings were held virtually due to Covid-19 pandemic
- Chairperson for the 9th Term of RASSC: Ms Ritva BLY from Finland
- 33 draft safety standards (including DPPs) were reviewed and approved by RASSC).
  - 11 NUSSC-led, 7 RASSC-led, 7 WASSC-led, 4 TRANNS-led, 3 EPReSC-led, 1 NSGC-led

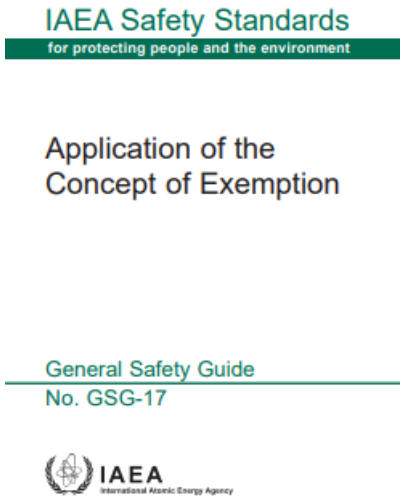
Full list with status at RASSC-55 is provided in Annex III

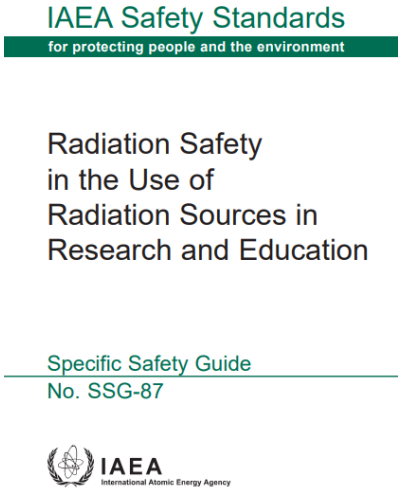
- 1 Safety Standards was considered superseded: RS-G-1.10 Safety of Radiation Generators and Sealed Radioactive Sources (superseded by SSG-8, SSG-11, SSG-55, SSG-57, SSG-58 and SSG-59)
- 1 part of superseded Safety Standard was agreed to be updates as a new Safety Guide: SS1 Safe Handling of radionuclides
- 2 new Working Groups established:
  - Working Group on ad-hoc in-depth analysis on the implementation of IAEA safety standards from IAEA missions
  - Joint TRANSSC/RASSC Working Group on the Proposed Revision of A1/A2 Values in Table 2 of SSR-6 (Rev. 1)

RASS-Led Draft Safety Standards

Standard	Doc	Title	Other Review Committees	New/Revision	Status
DS 470	SG	Radiation Safety of Radiation Sources used in Research and Education	EPReSC, TRANSSC, WASSC, NSGC	New	STEP 12 b2
DS 499	SG	Application of the Concept of Exemption	TRANSSC, WASSC	Revision of RS-G-1.7	STEP 12 b2
DS 519	SG	Protection of Workers Against Exposure Due to Radon		New	Step 12
DS 540	SG	Radiation Safety for Industrial Radiography	EPReSC, TRANSSC, WASSC, NSGC	Revision of SSG-11	Step 5
DS 544	SG	Radiation Protection and Safety in Existing Exposure Situations	EPReSC, WASSC	New	Step 5
DS 545	SG	Radiation Safety of Gamma, X Ray and Electron Beam Irradiation Facilities	EPReSC, TRANSSC, WASSC, NSGC	Revision of SSG-8	Step 5
DS 549	SG	Control of Orphan Sources and Other Radioactive Material in the Metal Recycling and Production Industries (revision of SSG-17)	EPReSC, WASSC, NSGC	Revision of SSG-17	Step 4

RASSC Led Safety Standards Published during RASSC 9th Term





Progress on key issues during the 9th Term

With indication of inclusion in the Medium-Term

Progress on Key Issues # is the rank of priority identified in the beginning og the 9th term				
#	Topic	Status RASSC-50	Status RASSC-55	Included Mid-term SS?
	New Issues			
1	Develop generic guidance on managing existing exposure situations (jointly with WASSC)	NOT STARTED	DS544 Step 5	Yes Appendix
2	Revision of IAEA Safety series No. 1 on safe handling of Radionuclides (updated version published in 1973)	NOT STARTED	CS held and planned. TO assigned	Yes
	Ongoing Issues			
3	Finalize DS499 and DS500 on exemption and clearance	DS499 & DS500 Step 7 at RASSC 48	Published as GSG-17 and GSG-18	Completed
4	Facilitate implementation of GSR Part 3 through the organization of national and regional workshops	Continuous ongoing	Continuous ongoing	Continuous ongoing
5	Finalize the project radionuclides in Food and Drinking Water in Non-Emergency Situations and publish the agreed safety report and TECDOC.	Pending TM and Finalization	Published Part 1 (SR 114) & Part 2 (TECDOC-2011)	Completed
	Other Priorities (if time and resources allow for it)			
6	Develop guidance on trade in non-food commodities (2020 GC Resolution paragraph 74)	Planned	TM held Q3 2023 In drafting	No
7	Develop guidance on radiation safety in radionuclide therapies (update IAEA Safety Report 63 Release of Patients after Radionuclide Therapy, 2009)	Not started	Not started	No
8	Develop guidance on non-target exposure in radiotherapy and second cancers	Not started	TS held Q2 2023 No need for guidance for the time being	No
9	Develop a discussion document on radionuclides in consumer goods (2020 GC Resolution paragraph 75)	Not started	Initiated	No

Progress on key issues during the 9th Term

With indication of inclusion in the Medium-Term

Progress on Key Issues # is the rank of priority identified in the beginning og the 9th term				
#	Topic	Status RASSC-50	Status RASSC-55	Included Mid-term SS?
	RASSC-led guidance predating GSR Part 3			
1	SSG-8 Radiation Safety of Gamma, Electron and X-Irradiation Facilities. (2010)	Not started	DS545 Step 5	Yes Appendix
2	SSG-11 Radiation Safety in Industrial Radiography. (2011)	Not started	DS540 Step 5	Yes Appendix
3	SSG-17 Control of Orphan Sources and other Radioactive Material in the Metal Recycling and Production Industries. (2012)	Not started	DS549 Step 4	Yes Appendix
4	SSG-19 National Strategy for Regaining Control over Orphan Sources and for Improving Control over Vulnerable Sources. (2011)	Not started	Plan for CS in Q4 2023	Yes
5	RS-G-1.9 Categorization of Radioactive Sources. (2005)	Not started	DPP to be developed	Yes
	For decision			
	For RS-G-1.10 Safety of Radiation Generators and Sealed Radioactive Sources, which might be considered as superseded by SSG-8, SSG-11, SSG-55, SSG-57, SSG-58 and SSG-59, this will be looked at later on by RASSC but not as a first priority	Decision needed	Decision to be made	No

Topical Discussions

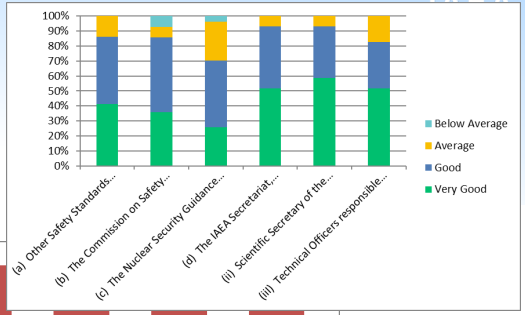
- Radionuclides in Food in Non-Emergency Situations (RASSC-50)
- Joint Topical Session with ICRP: Is the current radiation protection system fit for purpose? (RASSC-52)
- Radiation Safety of Non-Food Commodities (RASSC-53)
- Second Primary Cancers following Radiotherapy (RASSC-54)

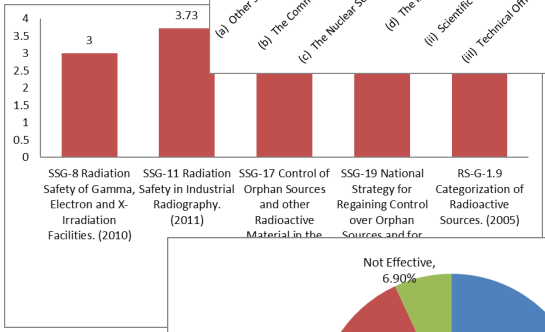
Include presentations by invited external international experts in addition to presentations by the Secretariat

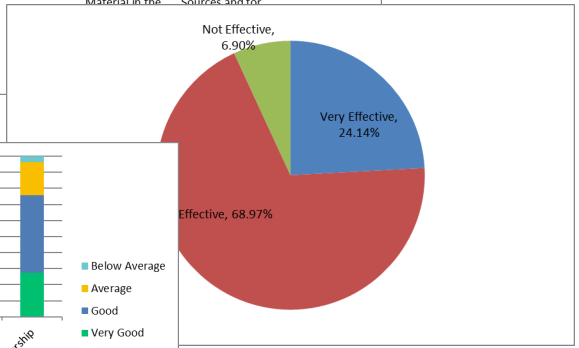
- Applicability of the IAEA Safety Standards to Novel Advanced Reactors
- Existing Exposure Situations

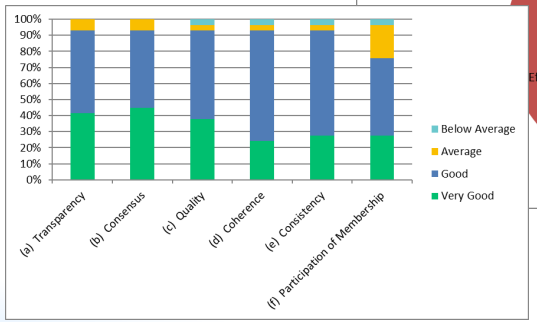
RASSC End-of-term Self-Assessment

- As in the two previous terms in 2017 and in 2020, RASSC undertook an end-of-term assessment of its performance
- Answered by 29 out of the 65 MSs invited to participate
- Questions on:
  - Performance of RASSC during the current term
  - Ranking priorities for the next term
  - Proposals for issues for consideration by the next RASSC Term
- Full report included as Annex VI









Proposes priorities for the next Term

- New Guidance
  1. Develop generic guidance on managing existing exposure situations *(DS544)*
  2. Revision of IAEA Safety Series No. 1 on Safe Handling of Radionuclides (updated version published in 1973).
  3. Develop guidance on trade in non-food commodities (GC Resolution) *Under development*

- Guidance predating GSR Part 3 and GSR Part 7
  1. SSG-11 Radiation Safety in Industrial Radiography (2011). *(DS540)*
  2. SSG-17 Control of Orphan Sources and other Radioactive Material in the Metal Recycling and Production Industries (2012). *(DS549*
  3. SSG-8 Radiation Safety of Gamma, Electron and X-Irradiation Facilities (2010). *(DS545)*
  4. RS-G-1.9 Categorization of Radioactive Sources (2005).
  5. SSG-19 National Strategy for Regaining Control over Orphan Sources and for Improving Control over Vulnerable Sources (2011).

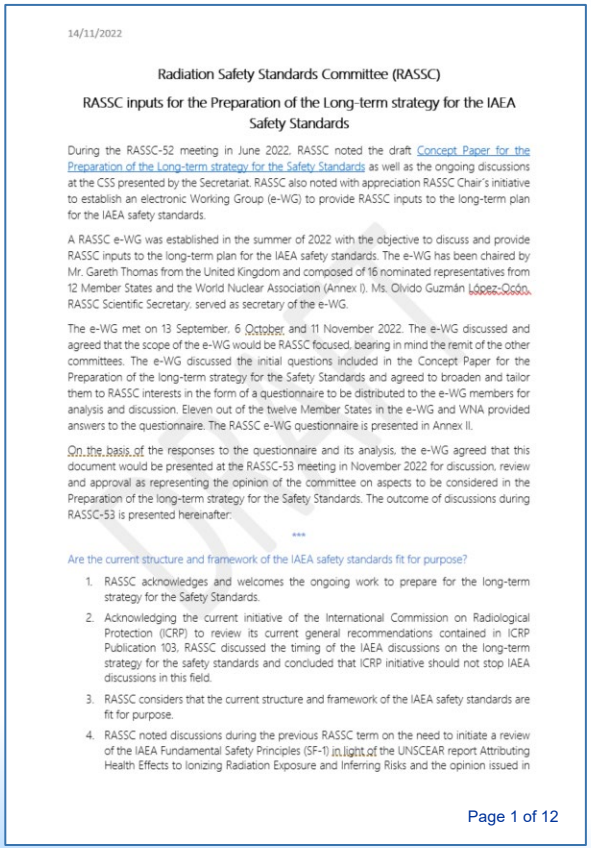
- Other priorities
  1. Development of a discussion document on radionuclides in consumer goods.
  2. Finalisation of the SG on “Protection of workers against the exposure to radon” (DS519).
  3. Development of guidance on radiation safety in radionuclide therapies

A final decision on priorities will be taken by the incoming RASSC at its meeting in June 2024

Some individual proposals for issues for consideration by the next RASSC Term (no particular order)

- To continue including topical sessions of interest for MS with participation of international organizations.
- To consider changing the format of the meetings by having a blend of workshop, small group discussions and the traditional meeting approach, in order to have a proper discussion of the issues.
- To have IT-solutions to make the process of reviewing documents easier and to organize some of the meetings online instead of in person, in order to ease the burden on MS.
- To set aside time on the RASSC agenda for Member States to share issues.
- To enable wider and more detailed discussion of the IAEA professional staff with national/external experts on topics of the drafted documents to improve their quality.
- To be consistent with the work done by other international organizations in the same field, to provide ICRP with better feedback from the implementation of its Recommendations into the Standards, to specify real needs in practical radiation protection and to keep the regulatory framework at a reasonable level.
- To have the same level of detail for all documents, since some are too detailed, while others contain too few details.
- Allow for more time for discussion during RASSC meetings.
- Consider setting working groups within RASSC to allow for more in-depth discussions
- Encourage country presentations on topics which could be of interest for other Member States.
- Support better analysis of the different IAEA missions related to GSR Part 3 and relevant guidance, namely IRRS missions.

RASSC inputs for the preparation of the long-term strategy



14/11/2022

Radiation Safety Standards Committee (RASSC)

RASSC inputs for the Preparation of the Long-term strategy for the IAEA Safety Standards

During the RASSC-52 meeting in June 2022, RASSC noted the draft Concept Paper for the Preparation of the Long-term strategy for the Safety Standards as well as the ongoing discussions at the CSS presented by the Secretariat. RASSC also noted with appreciation RASSC Chair's initiative to establish an electronic Working Group (e-WG) to provide RASSC inputs to the long-term plan for the IAEA safety standards.

A RASSC e-WG was established in the summer of 2022 with the objective to discuss and provide RASSC inputs to the long-term plan for the IAEA safety standards. The e-WG has been chaired by Mr. Gareth Thomas from the United Kingdom and composed of 16 nominated representatives from 12 Member States and the World Nuclear Association (Annex I). Ms. Olvido Guzmán López-Ocón, RASSC Scientific Secretary, served as secretary of the e-WG.

The e-WG met on 13 September, 6 October and 11 November 2022. The e-WG discussed and agreed that the scope of the e-WG would be RASSC focused, bearing in mind the remit of the other committees. The e-WG discussed the initial questions included in the Concept Paper for the Preparation of the long-term strategy for the Safety Standards and agreed to broaden and tailor them to RASSC interests in the form of a questionnaire to be distributed to the e-WG members for analysis and discussion. Eleven out of the twelve Member States in the e-WG and WNA provided answers to the questionnaire. The RASSC e-WG questionnaire is presented in Annex II.

On the basis of the responses to the questionnaire and its analysis, the e-WG agreed that this document would be presented at the RASSC-53 meeting in November 2022 for discussion, review and approval as representing the opinion of the committee on aspects to be considered in the Preparation of the long-term strategy for the Safety Standards. The outcome of discussions during RASSC-53 is presented hereinafter:

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Are the current structure and framework of the IAEA safety standards fit for purpose?

1. RASSC acknowledges and welcomes the ongoing work to prepare for the long-term strategy for the Safety Standards.
2. Acknowledging the current initiative of the International Commission on Radiological Protection (ICRP) to review its current general recommendations contained in ICRP Publication 103, RASSC discussed the timing of the IAEA discussions on the long-term strategy for the safety standards and concluded that ICRP initiative should not stop IAEA discussions in this field.
3. RASSC considers that the current structure and framework of the IAEA safety standards are fit for purpose.
4. RASSC noted discussions during the previous RASSC term on the need to initiate a review of the IAEA Fundamental Safety Principles (SF-1) in light of the UNSCEAR report Attributing Health Effects to Ionizing Radiation Exposure and Inferring Risks and the opinion issued in

Page 1 of 12

- RASSC e-WG established during RASSC-52
- Scope: RASSC focuses bearing in mind remit of other RC
- 16 Nominated representatives from 12 Member States and 1 international organisation. Chair from UK
- 3 Virtual meetings
- Document approved during RASSC-53 representing the opinion of the committee on aspects to be considered in the Preparation of the long-term strategy for the Safety Standards
- 37 Paragraphs structured in 11 sections:
  - Are the current structure and framework of the IAEA safety standards fit for purpose?
  - Factors to be considered in future Standards
  - Covid-19 implications and foreseeing other pandemics
  - Climate change impacts
  - New and emerging technologies
  - Artificial Intelligence (AI), deep learning, big data
  - Towards an all-hazards approach
  - Protection of the environment
  - Communication, stakeholder involvement, openness, transparency and accountability
  - Providing for the application of the Safety Standards
  - Improving the efficiency of the Regulatory Body

Link to RASSC inputs for the Preparation of the Long-term strategy for the IAEA

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Thank you!