

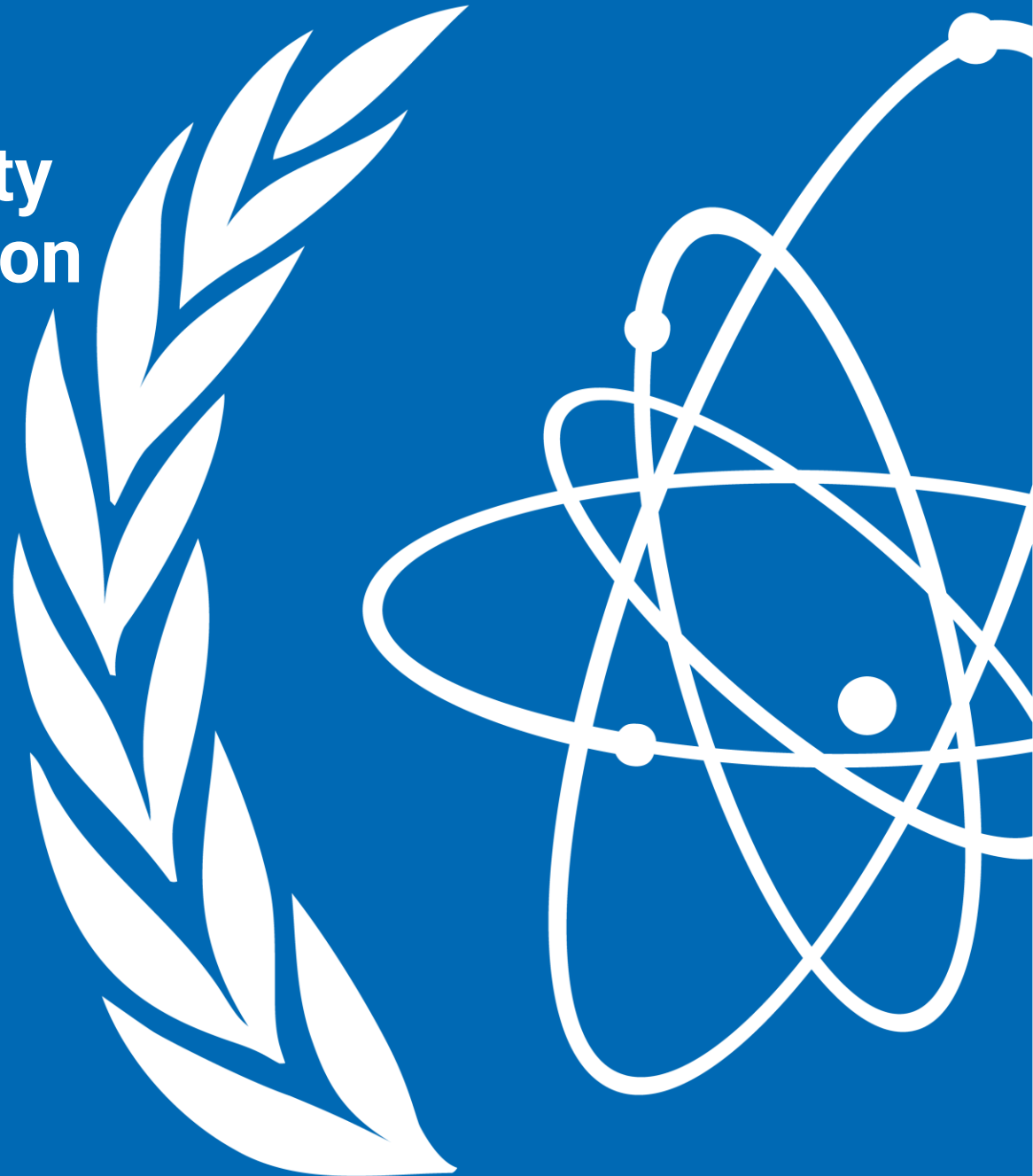
Feedback on the use of IAEA Safety Standards in Radiological Protection

HERCA 69 GS Side event

16 September 2025

Hildegarde Vandenhove, Director

*Division of Radiation, Transport and Waste
Safety, IAEA*



What is the IAEA's role in radiation safety?

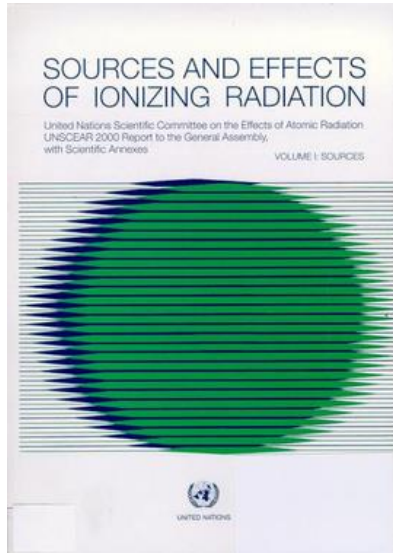
to (1) **establish** or adopt, in consultation and, where appropriate, in collaboration with the competent organs of the United Nations and with the specialized agencies concerned, **standards for safety for protection of health and minimize of danger to life and property**, and to (2) provide for the application of these standards..., at the request of the parties, ... or at the request of a State...

STATUTE

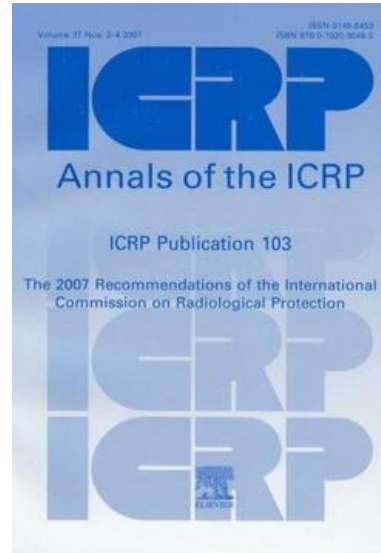
Establishment of Radiation Safety Standards

Roles of different organizations

RP Science



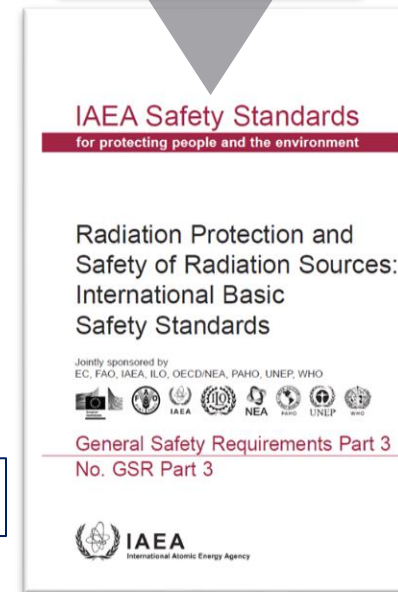
RP Principles



RP Standards



Essential principles
(moral obligation)



Essential requirements
(legal obligation if
in MS national
legislation)

National
regulations

Consistency between science and safety requirements secured

Safety Standards Pyramid

Safety fundamentals - underlying principles aimed at politicians and regulatory authorities

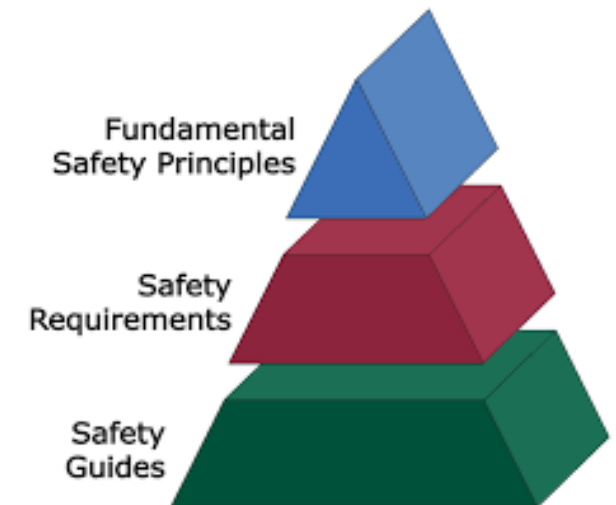
- The structure of the safety standards reflects the ten Fundamental Safety Principles

Safety Requirements -specify obligations and responsibilities (“shall”)

- Requirements address what shall be done
- General Safety Requirements: Applicable to all facilities and activities
- Specific Safety Requirements: Applicable to specified facilities or activities

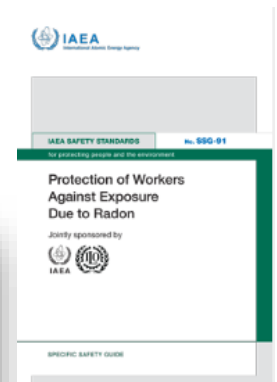
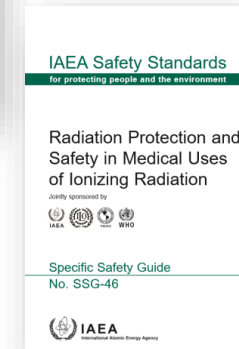
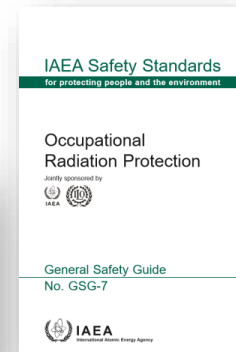
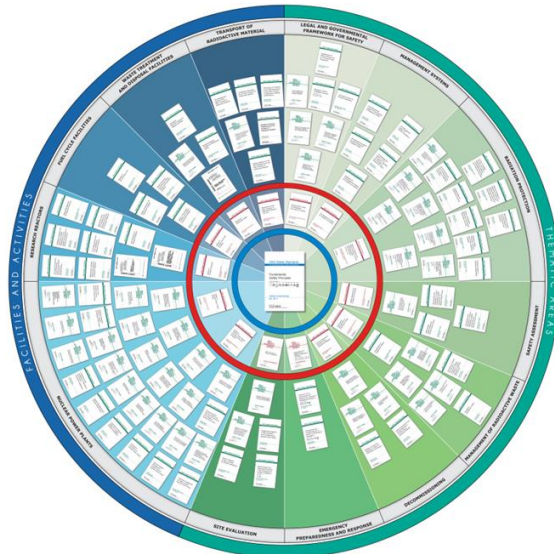
Safety guides -recommendations on meeting requirements (“should”)

- Provide guidance on how to implement safety requirements
- General or Specific Safety Guides



Who is involved in the development of IAEA safety standards in radiation safety?

- Member States
- Radiation Safety Standard Committee (RASSC) and other SSCs
- International organizations (EC, FAO, ILO, OECD/NEA, PAHO, UNEP, WHO)
- Inter-Agency Committee on Radiation Safety (IACRS)
- International experts
- Users



Fostering general awareness of radiation and radiological protection through education and training

Wide spectrum of training and capacity-building programmes

- Tailored training materials and courses
- E-learning Courses on Radiation Protection
- Workshops, Technical Meetings, Conferences
- Expert missions
- Review Missions & Advisory Services
- Schools
- Conferences, Congresses
- Webinars
- Community of Practice
- Tools and databases



Fostering general awareness of radiation and radiological protection through education and training

Specialized training courses and workshops cover a wide range of radiation safety subjects

- suitable for different categories of personnel dealing with ionizing radiation: regulators, health professionals, radiation protection officers or operators
- focus on topics such as the regulatory framework, occupational exposure, **patient protection**, safe radioactive waste management, decommissioning, environmental remediation, safety of radiation sources, transport safety
- Training packages that support **courses are in general available online** and **many e-learning packages** are developed alongside
 - [Radiation Safety Culture Trait Talks Handbook](#)



Radiation Safety Culture Trait Talks Handbook

[Handbook →](#)

Modules:

- 01. Individual Responsibility
- 02. Questioning Attitude
- 03. Effective Safety Communication
- 04. Leadership Responsibility
- 05. Decision-making
- 06. Respectful Work Environment
- 07. Continuous Learning
- 08. Problem Identification and Resolution
- 09. Environment for Raising Concerns
- 10. Work Processes

Review Missions & Advisory Services

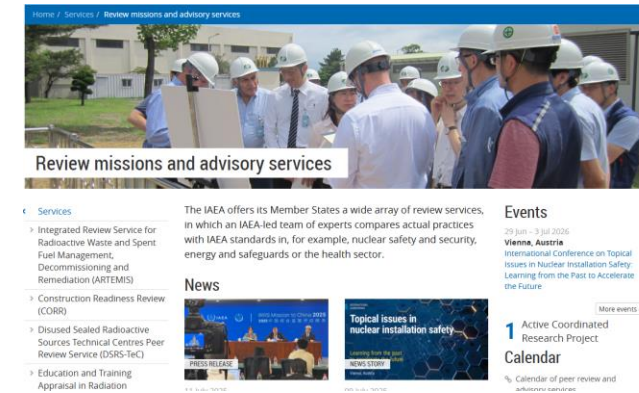
IAEA peer review services and associated self-assessments

- checking effectiveness for safety standards implementation
- evaluating the radiation safety framework
- monitoring progress & identifying gaps and areas for further work and improvements in capacity building

IAEA Occupational Radiation Protection Appraisal Service (ORPAS) Mission

- a cross-cutting review, against the relevant IAEA safety standards of the regulatory framework for ORP
- evaluation of effectiveness of country arrangements for ORP
- platform for identifying systemic insights and good practices that may inform the continuous improvement of the IAEA Safety Standards

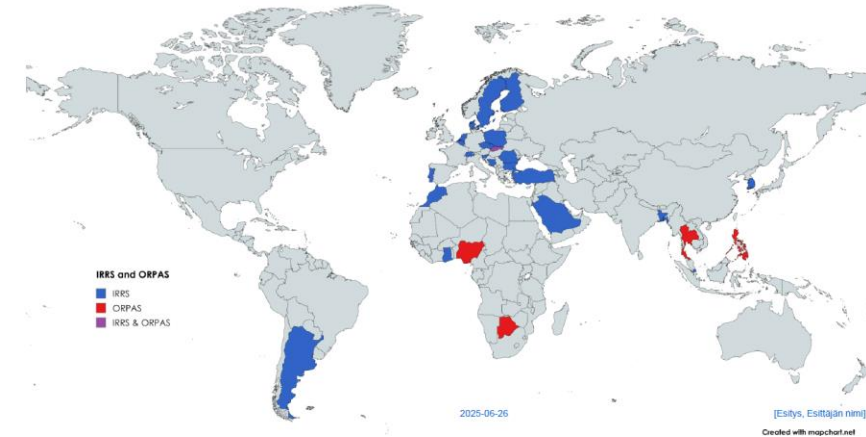
ORPAS COLLABORATION PLATFORM FOR MEMBER STATES



Implementation of IAEA safety standards

RASSC Action: WG on ad-hoc in-depth analysis on implementation of IAEA safety standards from IAEA missions with focus on occupational exposure considering:

- IRRS and ORPAS missions in 2021-2024
- 22 IRRS mission reports & 5 ORPAS reports in total



Preliminary Conclusions:

- Safety Standards, related to occupational protection, are clear but implementation is still on-going
- Responsibilities and co-operation between regulatory bodies and between regularly bodies and TSOs are not always clear → may prevent conducting effective and efficient regulatory activities
- Support for implementation of Safety Standards in MSs is needed

Final Report is planned to be presented in RASSC 59, November 2025

Feedback from
RASSC 58 in June
2025

Drafting a report

Presenting the
report in RASSC 59
in November 2025

Promotion of the global application of IAEA Safety Standards in Radiation Safety and Monitoring





WEBINAR

Exposure due to radionuclides in food in non-emergency situations, parts 1–5

2, 9, 16, 23 & 30 April 2025

13:30 Vienna time

Application of IAEA safety standards

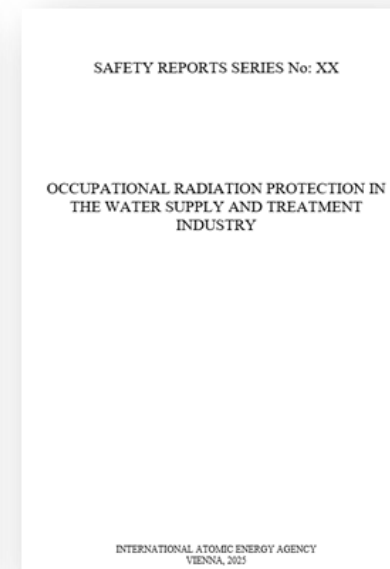
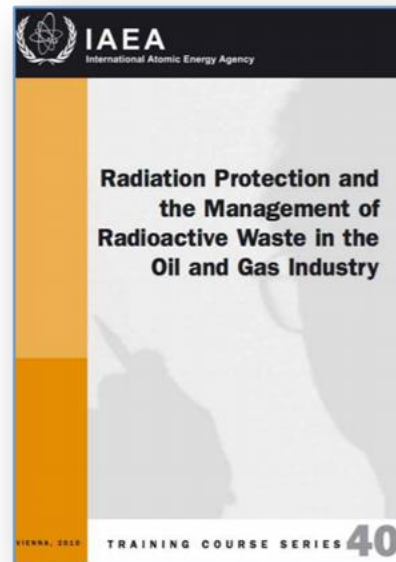
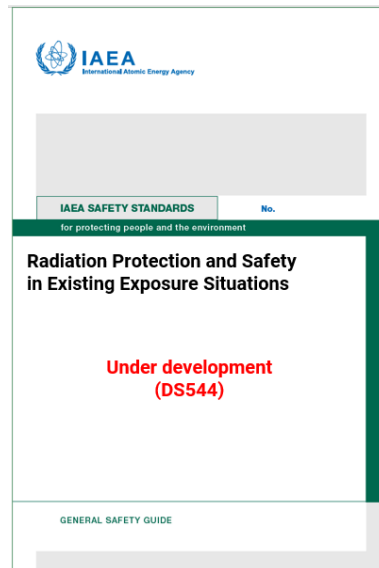
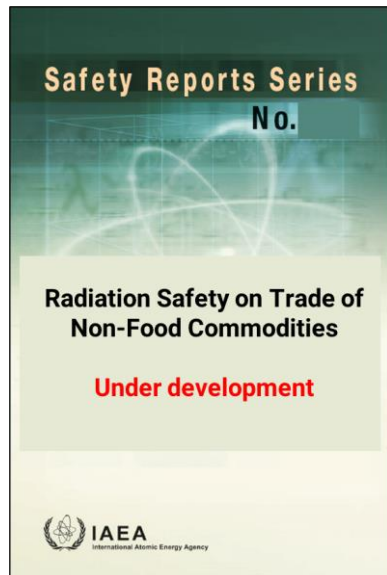
Wide spectrum of training and capacity-building programmes

- training courses
- e-learning
- webinars
- technical meetings
- review missions
- workshops and conferences
- promotional publications and web-based information



Conclusions

- **Feedback from Member States** continues to highlight **challenges in the interpretation & application of safety standards**
- In response, the IAEA remains committed to issuing new standards, revising existing ones, and **strengthening implementation support mechanisms** to ensure their **continued relevance, usability, & global applicability**





IAEA

Thank you!