



IAEA

Atoms for Peace
and Development

**International Conference on
Radiation Protection and Safety:
Promoting Harmonization, Enabling Innovation**

**IAEA Headquarters
Vienna, Austria**

6–10 December 2027

**Organized by the
International Atomic Energy Agency (IAEA)**

In cooperation with the
European Commission (EC)
International Labour Organization (ILO)
OECD Nuclear Energy Agency (OECD/NEA)
Pan American Health Organization (PAHO)
United Nations Environment Programme (UNEP)
World Health Organization (WHO)

Announcement and Call for Papers

A. Background

The IAEA's fundamental safety objective, as stated in Fundamental Safety Principles (IAEA Safety Standards Series No. SF-1), is to protect people and the environment from harmful effects of ionizing radiation without unnecessarily restricting the many beneficial applications of radiation enjoyed by society.

The IAEA Safety Standards Series No. GSR Part 3, Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards, published in 2014, jointly sponsored by the European Commission (EC), the Food and Agriculture Organization of the United Nations (FAO), the International Labour Organization (ILO), the OECD Nuclear Energy Agency (OECD/NEA), the Pan American Health Organization (PAHO), the United Nations Environment Programme (UNEP) and the World Health Organization (WHO), provide consensus based requirements to protect people and the environment from harmful effects of ionizing radiation due to all types of radiation sources.

More than a decade has passed since the publication of GSR Part 3, during which States have been implementing its requirements and the recommendations provided through the associated Safety Guides, transposing them into national regulations. For implementation, States are required to apply the fundamental principles of radiation protection — justification, optimization and dose limitation — within the established terminology and conceptual framework of planned, existing and emergency exposure situations for radiation protection of workers, the public, patients and the environment.

While the full implementation of requirements for radiation protection and safety is an inherently demanding and comprehensive process — requiring a certain stability of the system of Safety Standards and underlying concepts and approaches — it is timely and valuable to reflect on the successes achieved and the challenges encountered when implementing all the requirements in GSR Part 3.

These experiences are unfolding within society alongside changing expectations of protection, transparency and engagement. Innovations across medical, industrial, research, food and agriculture applications are advancing rapidly, including those based on particle accelerators and irradiation technologies. In parallel, the energy sector is advancing the deployment of small modular reactors and is exploring gained momentum for fusion technologies to become a viable source of energy.

Cross cutting topics are central to ensuring that radiation protection and safety continue to enable innovation across all the applications mentioned above. These include the increasing role of artificial intelligence in radiation protection and safety; the need to sustain and strengthen radiation protection expertise amid growing technological variety and despite limited resources; and the continuous reinforcement of a strong safety culture among rapidly changing environments.

The importance of transparent and science based risk communication cannot be overstated, fostering trust among workers, the public and other interested parties, especially as novel technologies are introduced and as the system of radiological protection may evolve in response to new scientific insights, ethical and experience based considerations.

Embracing the motto 'Promoting Harmonization, Enabling Innovation' the Conference will take a contemporary look at GSR Part 3, showcasing how its underlying principles and requirements enable technological innovation, grounded in experience, ethics and science.

B. Purpose and Objectives

The purpose of the event is to reflect on more than a decade of experience in implementing the 2014 Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards (GSR Part 3) and to evaluate their continued relevance in the context of emerging technologies across energy, industry, research and medical applications.

The objectives of the Conference include:

- Capturing success stories as well as lessons learned from challenges in the implementation of the requirements of GSR Part 3 across planned, existing and emergency exposure situations, and for all categories of exposure: workers, the public and patients.
- Highlighting radiation protection and safety aspects as key enablers of innovation, with particular emphasis on those relevant to emerging, innovative and fast developing technologies such as fusion, small modular reactors, advanced industrial, research and medical applications.
- Agreeing on a way forward for the coming decade — one that promotes high level of radiation protection and safety and innovation.

C. Themes and Topics

The scope of the conference includes radiation protection for the public, workers, patients and the environment in planned, emergency and existing exposure situations. Implementation of GSR Part 3 in context of the development and application of emerging technologies in the nuclear, industrial, research, medical, food and agriculture fields will be addressed.

The conference will include but is not limited to the following topical areas:

Promoting harmonization of radiation protection and safety

- Application of the system of radiological protection for planned exposure situations;
- Use of graded approaches when developing regulatory frameworks for radiation protection;
- Experience with the justification of practices and activities, including non-medical human imaging and consumer products;
- Practical application of dose limits and dose constraints for workers and the public;
- Experience with applications of concepts of exemption and clearance;
- Putting ALARA into practice;
- The role of conservatism in prospective and retrospective dose assessments;
- Justification and implementation of protection strategies for existing exposure situations;
- The use of reference levels and integration of social, economic and environmental aspects in the optimization of protection and safety in existing exposure situations;
- Roles and responsibilities among involved parties when managing existing exposure situations;

- Experience in emergency exposure situations, including management of exposures of workers, the public, and the environment and transition to existing exposure situations.
- Effective risk communication and stakeholder involvement;

Enabling innovation through radiation protection and safety

- Radiation protection and safety for industrial, medical and research applications using radiation generators and radioactive substances, including accelerator based technologies, irradiation and inspection devices;
- Radiation protection and safety for fusion facilities;
- Radiation protection and safety for small modular reactors;
- Artificial intelligence and digitalization in radiation protection;
- Ensuring and sustaining expertise and capacity in radiation protection and safety;
- Strengthening and embedding safety culture across established and emerging stakeholders;
- Application and evolution of the system of radiological protection underlying IAEA Safety Standards.

D. Structure

The conference format is expected to be organized mainly around **plenary sessions**. Representatives from regulatory bodies and assigned authorities, radiation protection professionals, developers, operators and users of facilities and technologies involving ionizing radiation, academics and researchers in the field of health physics and radiation protection will be delivering oral and poster presentations and participating in panel discussions.

The **opening session** will include welcome addresses from the IAEA and the Conference President, followed by opening remarks from the cooperating organizations. This session will be further complemented by a **keynote presentation** on IAEA Safety Standards Series No. GSR Part 3, Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards and how it stands with modernity.

A **series of topical sessions** will cover selected areas of radiation protection and safety in all types of exposure situations and covering explicitly GSR Part 3 aspects for new medical, industrial, research and energy technologies. The topic of each session will be introduced by a chairperson, followed by invited presentations and a summary of poster contributions presented by a rapporteur. Each topical session will conclude with a plenary discussion.

Round table discussions on radiation protection and safety will be dedicated to identifying a way forward. After an introduction of the topic by the chairperson, brief statements will be delivered by the panel members. Following a summary of the relevant contributed abstracts by a rapporteur, a plenary discussion involving the audience will take place. Finally, during the concluding session, the chairpersons of the topical sessions and round table discussions will present their summaries, and the Conference President will present the conference findings, conclusions and recommendations on the way forward. The IAEA and the cooperating organizations will close the conference.

E. Expected Outcomes

The Conference is expected to benefit relevant and interested parties in the international community by fostering informed discussion and exchange that will:

- Identify key challenges in the implementation of GSR Part 3, together with forward looking actions to address them in the coming years.
- Further strengthen global harmonization of radiation protection and safety by integrating perspectives from all relevant stakeholders on success stories and lessons learned in the GSR Part 3 implementation process.
- Highlight the requirements of GSR Part 3 as relevant for enabling emerging technologies to develop and succeed safely.

F. Target Audience

The Conference is directed at a wide audience with an interest in radiation protection and safety in all types of exposure situations affecting the public, workers and the environment. In particular:

- Regulatory bodies and assigned authorities responsible for management of radiation risks from all types of exposure situations;
- Radiation protection professionals;
- Safety experts among developers, operators and users of new facilities and technologies involving ionizing radiation, including from the fields of fusion, small modular reactors, novel industrial, medical, and research facilities;
- Academics and researchers in the field of health physics and radiation protection.

The IAEA highly encourages the participation of women, early career professionals and individuals from developing countries.

G. Call for Papers

Contributions on the topics listed in Section C are welcome as oral or poster presentations. All submissions, apart from invited papers, must present original work, which has not been published elsewhere.

G.1. Submission of Extended Abstracts

Extended abstracts (approximately 400 to 500 words on one or a maximum of two A4 pages, may contain any charts, graphs, figures and references) should give enough information on the content of the proposed paper to enable the Programme Committee to evaluate it. Anyone wishing to present at the conference must submit an extended abstract in electronic format using the conference's file submission system ([IAEA-INDICO](#)), which is accessible from the conference web page (see Section Q). The extended abstract can be submitted through this system until **30 April 2027**. Specifications for the layout

will be available on IAEA-INDICO. The system for electronic submission of extended abstracts, IAEA-INDICO, is the sole mechanism for submission of contributed extended abstracts. Authors are encouraged to submit extended abstracts as early as possible. The IAEA will not accept submissions via email.

In addition, authors must register online using the InTouch+ platform (see Section H). The online registration together with the auto-generated Participation Form (Form A) and Form for Submission of a Paper (Form B) must reach the IAEA no later than **30 April 2027**.

IMPORTANT: The Programme Committee will consider uploaded extended abstracts only if these two forms have been received by the IAEA through the established official channels (see Section H).

G.2. Acceptance of Extended Abstracts

The Secretariat reserves the right to exclude extended abstracts that do not comply with its technical or scientific quality standards and that do not apply to one of the topics listed in Section C.

Authors will be informed by **30 June 2027** as to whether their submission has been accepted, either orally or as a poster, for presentation at the conference.

G.3 Proceedings

Following the conference, the IAEA will publish a summary report. The proceedings will be made available to read online.

H. Participation and Registration

All persons wishing to participate in the event must be designated by an IAEA Member State or should be a member of an organization that has been invited to attend.

Registration through the InTouch+ platform:

1. Access the InTouch+ platform (<https://intouchplus.iaea.org>):

- Persons with an existing NUCLEUS account can [sign in here](#) with their username and password;
- Persons without an existing NUCLEUS account can [register here](#).

2. Once signed in, prospective participants can use the InTouch+ platform to:

- Complete or update their personal details under ‘Basic Profile’ (if no financial support is requested) or under ‘Complete Profile’ (if financial support is requested) and upload the relevant supporting documents;
- Search for the relevant event (**EVT2502520**) under the ‘My Eligible Events’ tab;
- Select the Member State or invited organization they want to represent from the drop-down menu entitled ‘Designating authority’ (if an invited organization is not listed, please contact Conference.Contact-Point@iaea.org);
- If applicable, indicate whether a paper is being submitted and complete the relevant information;
- If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);

- Based on the data input, the InTouch+ platform will automatically generate Participation Form (Form A), Form for Submission of a Paper (Form B) and/or Grant Application Form (Form C);
- Submit their application.

Once submitted through the InTouch+ platform, the application together with the auto-generated form(s) will be transmitted automatically to the required authority for approval. If approved, the application together with the form(s) will automatically be sent to the IAEA through the online platform.

NOTE: Should prospective participants wish to submit a paper or request financial support, the application needs to be submitted by the specified deadlines (see section O).

For additional information on how to apply for an event, please refer to the [InTouch+ Help](#) page. Any other issues or queries related to InTouch+ can be sent to InTouchPlus.Contact-Point@iaea.org.

If it is not possible to submit the application through the InTouch+ platform, prospective participants are requested to contact the IAEA's Conference Services Section via email: Conference.Contact-Point@iaea.org.

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency's Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. Further information can be found in the [Data Processing Notice](#) concerning IAEA InTouch+ platform.

I. Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the conference. The IAEA has, however, limited funds at its disposal to help cover the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the **participant will make an important contribution to the conference**.

If participants wish to apply for a grant, they should submit applications to the IAEA using the InTouch+ platform through their competent national authority (see Section H). Participants should ensure that applications for grants are submitted by **12 July 2027**.

Applications must be accompanied by Participation Form (Form A) and Grant Application Form (Form C) which are autogenerated in the InTouch+ platform.

For this event, the submission of an abstract (and Form B) is a requirement for applications for financial support.

Applications that do not comply with the above conditions cannot be considered.

Approved grants will be issued in the form of a lump sum payment that usually covers **only part of the cost of attendance**.

J. Distribution of Documents

A preliminary and final programme will be made available on the conference web page (see Section Q) prior to the start of the conference. The electronic compilation of extended abstracts will be accessible free of charge to participants registered for the conference.

K. Exhibitions

A limited amount of space will be available for commercial vendors' displays/exhibits during the conference. Interested parties should contact the Scientific Secretariat by email RPConf2027@iaea.org by **30 April 2027**.

L. Working Language

The working language of the conference will be English. All communications must be sent to the IAEA in English.

M. Venue and Accommodation

The conference will be held at the Vienna International Centre (VIC), where the IAEA's Headquarters are located. Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

Participants must make their own travel and accommodation arrangements. Hotels offering a reduced rate for participants are listed on <https://www.iaea.org/events>. Please note that the IAEA is not in a position to assist participants with hotel bookings, nor can the IAEA assume responsibility for paying fees for cancellations, re-bookings and no-shows.

N. Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria as early as three months but not later than four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

For more information, please see the Austria Visa Information document available on <https://www.iaea.org/events>.

O. Key Deadlines and Dates

Submission of extended abstracts through IAEA-INDICO	30 April 2027
Submission of Form B (together with Form A) through the InTouch+ platform	30 April 2027
Notification of acceptance of extended abstracts for oral or poster presentation	30 June 2027
Submission of Form C (together with Form A) through the InTouch+ platform	12 July 2027
Submission of Form A only (no paper submission, no grant request) through the InTouch+ platform	29 November 2027

P. Conference Secretariat

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretaries and correspondence on administrative matters to the IAEA's Conference Services Section.

Q. Conference Web Page

Please visit the IAEA conference [web page](#) regularly for new information regarding this conference.