



**IAEA**

International Atomic Energy Agency  
*Atoms for Peace and Development*

# Free Webinars on Occupational Radiation Protection

📅 8 October 2020 ⌚ 14:00 CEST



8 October 2020

Tips and tricks for the practice of internal  
dosimetry in occupational radiation protection



**IAEA**

International Atomic Energy Agency

# Welcome to the 11<sup>th</sup> ORPU/RSTSU webinar



**WEBINAR ON  
Tips and Tricks for the  
Practice of Internal  
Dosimetry in Occupational  
Radiation Protection**



**8 October 2020**



**14:00- 16:30 CEST**



**IAEA**

International Atomic Energy Agency



8 October 2020

Tips and tricks for the practice of internal dosimetry in occupational radiation protection

# 11<sup>th</sup> ORPU / RSTSU webinar

Moderator: H. Burçin Okyar

Occupational Radiation Protection Unit

Section of Radiation Safety and Monitoring

Division of Radiation, Transport and Waste Safety

Department of Nuclear Safety and Security

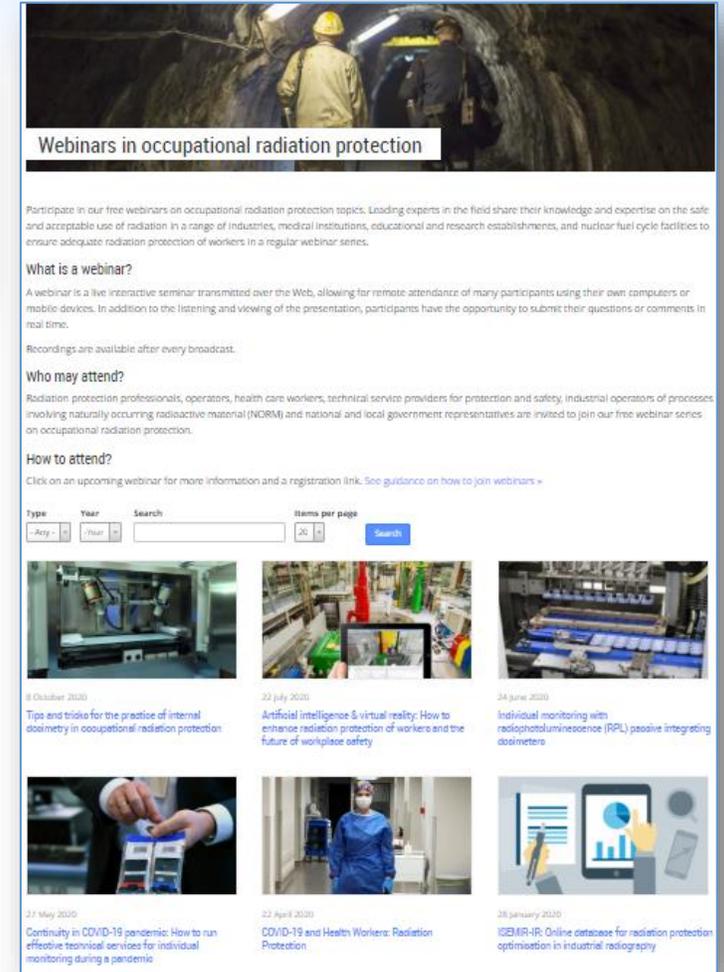


# WEBINAR on *Tips and tricks for the practice of internal dosimetry in occupational radiation protection*



## Organized jointly with

- European Radiation Dosimetry Group (**EURADOS**)
- Latin America Occupational Radiation Protection Optimization Network (**REPROLAM**)
- Asian Radiation Dosimetry Group (**ARADOS**)



**Webinars in occupational radiation protection**

Participate in our free webinars on occupational radiation protection topics. Leading experts in the field share their knowledge and expertise on the safe and acceptable use of radiation in a range of industries, medical institutions, educational and research establishments, and nuclear fuel cycle facilities to ensure adequate radiation protection of workers in a regular webinar series.

**What is a webinar?**

A webinar is a live interactive seminar transmitted over the Web, allowing for remote attendance of many participants using their own computers or mobile devices. In addition to the listening and viewing of the presentation, participants have the opportunity to submit their questions or comments in real time.

Recordings are available after every broadcast.

**Who may attend?**

Radiation protection professionals, operators, health care workers, technical service providers for protection and safety, industrial operators of processes involving naturally occurring radioactive material (NORM) and national and local government representatives are invited to join our free webinar series on occupational radiation protection.

**How to attend?**

Click on an upcoming webinar for more information and a registration link. [See guidance on how to join webinars >](#)

Type:  Year:  Search:  Items per page:

8 October 2020  
Tips and tricks for the practice of internal dosimetry in occupational radiation protection

22 July 2020  
Artificial intelligence & virtual reality: How to enhance radiation protection of workers and the future of workplace safety

24 June 2020  
Individual monitoring with radiophotoluminescence (RPL) passive integrating dosimeters

23 May 2020  
Continuity in COVID-19 pandemic: How to run effective technical services for individual monitoring during a pandemic

22 April 2020  
COVID-19 and Health Workers: Radiation Protection

28 January 2020  
ISEMIR-IR: Online database for radiation protection optimisation in industrial radiography

<https://www.iaea.org/topics/radiation-safety/webinars>

# Learning objectives

- IAEA GSR Part 3 requirements & GSG-7 guidance for TSPs for internal dosimetry
- Roles and duties of internal dosimetry services & monitoring methods
- Monitoring programmes for a wide range of exposure conditions and assess internal doses from the results of monitoring
- Assessment of internal doses from monitoring measurements
- Accuracy requirements, QA requirements, and criteria for approval and accreditation
- Computer based solutions for monitoring and internal dose assessment
- Status of work to implement ICP-MS for analysis of excreta



## Radiation Safety and Monitoring Section



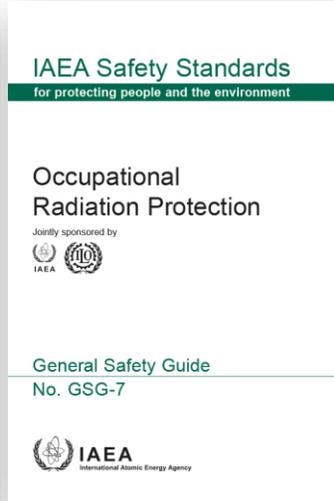
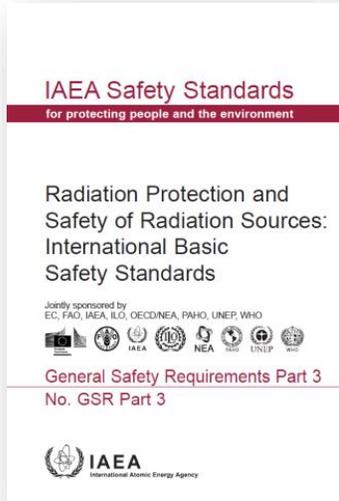
**Welcome note from  
Miroslav Pinak  
Head of Radiation Safety and Monitoring Section/ NSRW**

**RSM:** <https://www.iaea.org/about/radiation-safety-and-monitoring-section>



Webinar on *“Tips and tricks for the practice of internal dosimetry in occupational radiation protection”*

# GSR Part 3 & GSG-7



- **Occupational Exposure Assessment**
- The regulatory body shall establish and enforce requirements for the monitoring and recording of occupational exposures (***authorization or approval of service providers for individual monitoring and calibration services***)
- Employers shall be responsible for making arrangements with authorized or approved dosimetry service providers that operate under a QMS for assessment of occupational exposures of workers
- Process and criteria in GSG-7

# GSG 7: the approval process



- *Submission* of a report containing information
  - Dosimetry system
  - Accreditation of the management system in accordance with a relevant international standard
  - Certification that the dosimetry system is traceable to the appropriate national standard
  - Irradiation performance test at unknown doses in unknown situations
  - On-site inspection and assessment of the laboratory
  - Performance testing



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## María Antonia López

Head of the Internal Dosimetry Group of the CIEMAT (Spain)  
Member of C2 of the ICRP since 2017 and ICRP TG 112 on  
Emergency Dosimetry since 2020

Involved with the EURADOS since 2001 and been part of the  
EURADOS Council and coordinating WG 7 on internal  
dosimetry from 2008 to 2018

Member of the ISO WG25 on Population Monitoring  
Following Radiological Accidents and ISO WG13 on Internal  
Dosimetry

Member of the WG n internal contamination dosimetry of  
WHO's REMPAN





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## Nancy Puerta Yepes

Head of the Internal Dosimetry Department of the Nuclear Regulatory Authority (Argentina)

Currently coordinating the REPROLAM group on Internal Dosimetry

Physical Engineer and has a MSc degree in science physics from National University of Colombia, a master's degree in medical physics from National University of Cuyo, and a post degree in Radiation Protection and Safety of Radiation Sources, serves as a professor of internal dosimetry of this postgraduate specialization





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## Wi-Ho Ha

Ph.D. in nuclear engineering from Hanyang University in Seoul (South Korea)

Since 2006, he has worked at the National Radiation Emergency Medical Center of KIRAMS as a senior researcher in the field of radiation dosimetry

Head of the Health Physics Laboratory at the KIRAMS for more than 10 years.

Working at the Nuclear Safety and Security Commission as a visiting research scientist

Served as the Secretary of the ARADOS





# Radiation Safety Technical Services

**RSTSU:** <https://www.iaea.org/topics/workers/radiation-safety-technical-services>

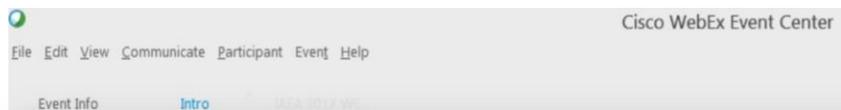


**David Tucker**  
**Unit Head, RSTSU**



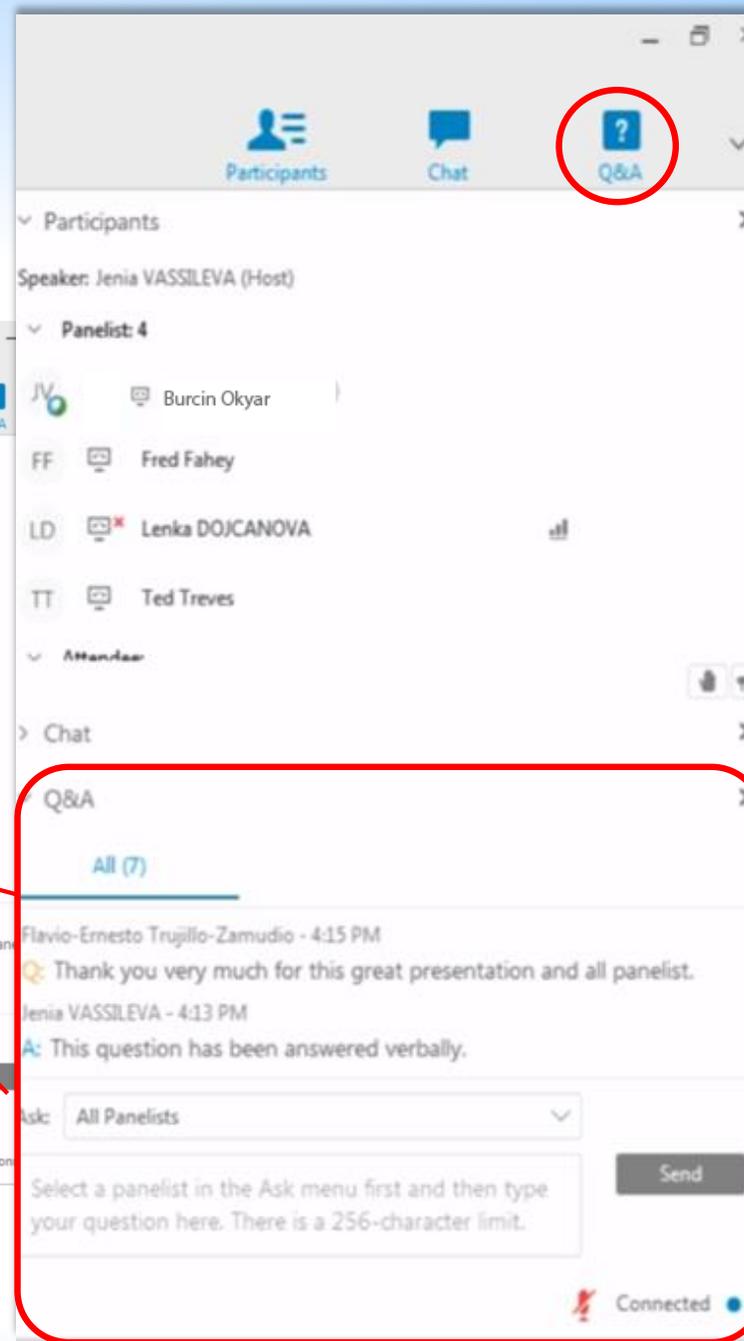
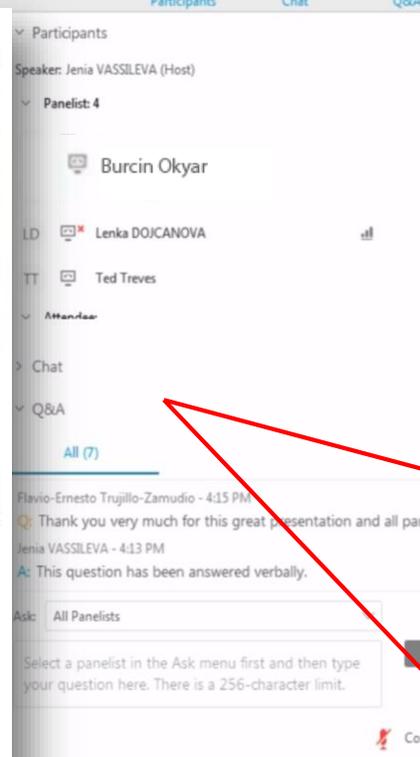


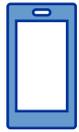
# How to ask questions



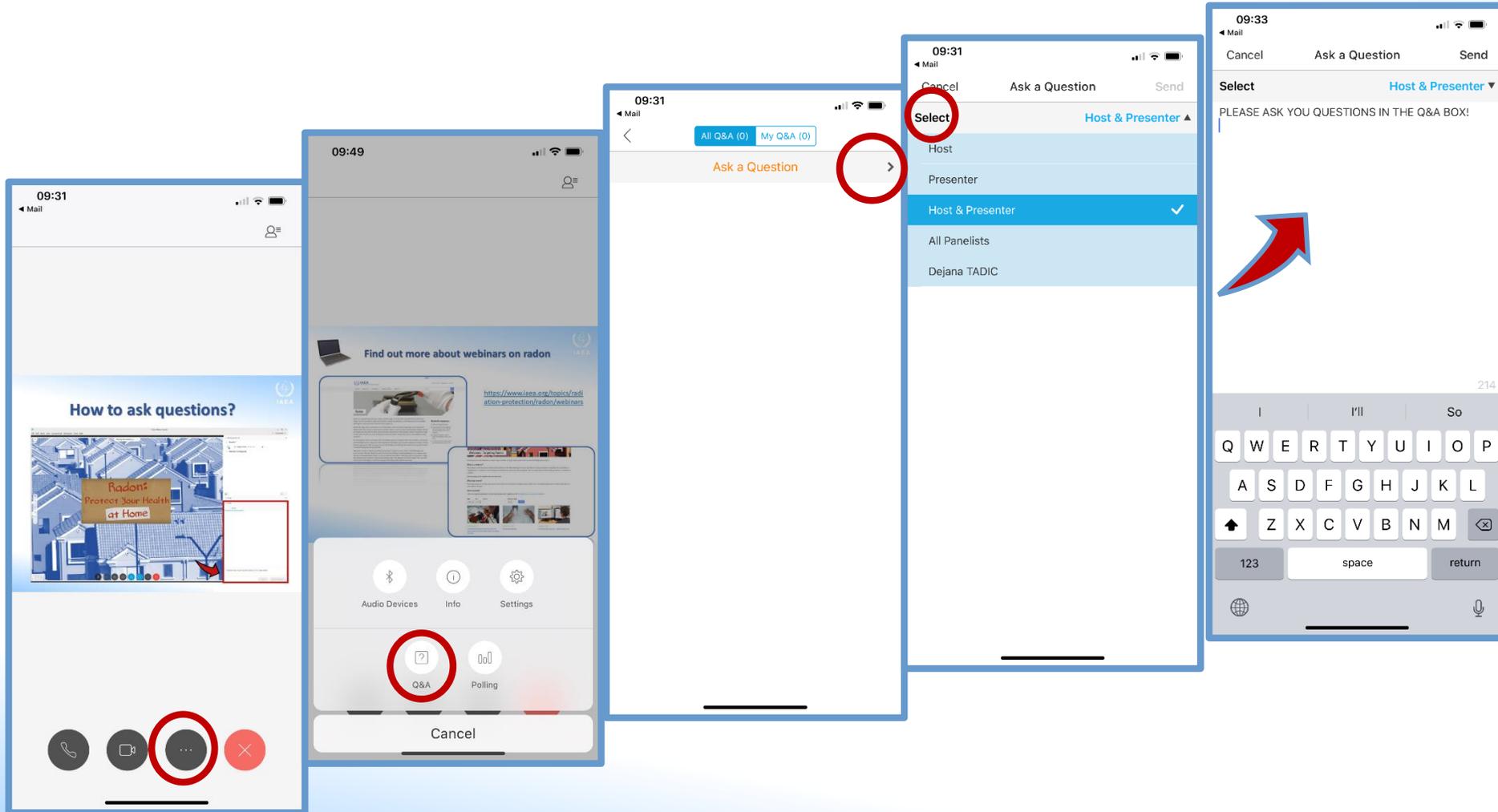
27 May 2020

Continuity in COVID-19 pandemic: How to run effective technical services for individual monitoring during a pandemic





# How to ask questions?



The image illustrates the process of asking a question through a series of five mobile phone screenshots:

- 09:31**: Main webinar interface. A red circle highlights the 'More' menu icon (three dots) in the bottom navigation bar.
- 09:49**: 'More' menu overlay. A red circle highlights the 'Q&A' icon.
- 09:31**: 'Ask a Question' screen. A red circle highlights the right-pointing arrow next to the 'Ask a Question' text.
- 09:31**: Selection menu. A red circle highlights the 'Host & Presenter' option, which is selected with a checkmark.
- 09:33**: Text input screen. A red arrow points to the text area where the question should be typed. The screen shows 'PLEASE ASK YOUR QUESTIONS IN THE Q&A BOX!' and a keyboard.



# Book your seat (Upcoming webinars)

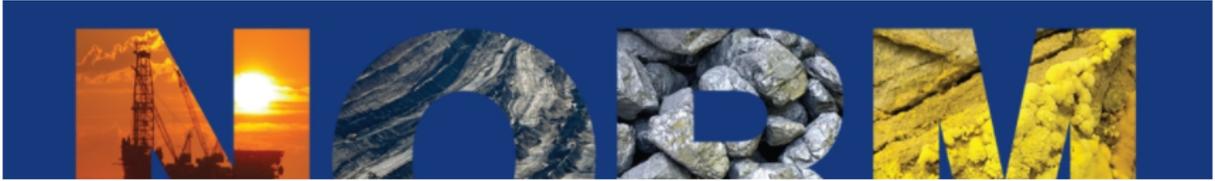
Topics to be addressed;

- Establishment and Operation of Management Systems for TSPs
- Recognition as a third party and laboratory accreditation – demonstration of fulfilment

**Watch the announcements @**

**ORP webinars web-page: <https://www.iaea.org/topics/radiation-safety/webinars>**

# International Conference on the Management of NORM in Industry



**(Virtual Event) International Conference on the Management of Naturally Occurring Radioactive Materials (NORM) in Industry**  
19–30 October 2020

**Conference on the Management of Naturally Occurring Radioactive Materials (NORM) in Industry 2020**

- Home
- Workshops
- News

**Owing to the COVID-19 pandemic, this conference will be held virtually.**

*Participants who would like full access to the virtual conference platform, must be officially designated and can register by sending Participation Form (Form A) to the IAEA through their national authority. Designations previously received for this event remain valid and participants are not required to resubmit their participation form.*

*Persons who would like to officially register as observers at the conference can do so by completing Participation Form (Form A) and sending it directly to the IAEA. By registering as an observer, you will have access to the conference related material (e.g. abstracts, presentations, posters) and other limited functions within the virtual conference platform.*

*Persons who simply would like to follow discussions during the conference can do so via the live-stream button which will be available on this website.*

Over the past few decades, many studies have found elevated natural radionuclide activity concentrations in wastes and residues from a wide range of industrial activities that are not part of the nuclear fuel cycle. Since then, despite some successful cases, most Member States have been struggling to find feasible and implementable approaches for the proper management of naturally occurring radioactive material (NORM) wastes and residues.

**Live Video Stream** ➔

**Related resources**

- Announcement and Call for Papers
- Participation Form (Form A)
- Draft Programme
- General Information and Logistics
- Conference Flyer
- List of Invited Organizations
- Essays
- FAQs
- IAEA INDICO

**Conference App**

Download on the App Store | GET IT ON Google Play

**Contact**



**International Conference on the Management of Naturally Occurring Radioactive Material (NORM) in Industry**

**IAEA Headquarters**  
Vienna, Austria  
19–30 October 2020  
Ref. No: IAEA-CN-287; EVT1902890  
**Scientific Secretaries**

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Tel.: +43 1 2600 21317  
Email: [Conference.Contact-Point@iaea.org](mailto:Conference.Contact-Point@iaea.org)

<b>20 October 2020 - 12:00 - 13:30 (CET)</b>
Workshop on the Oil and Gas Industry, with a focus on Decommissioning of Oil and Gas Facilities
<b>21 October 2020 - 12:00 - 13:30 (CET)</b>
Workshop on Uranium and other Metal Resources in Mining and Milling Wastes
<b>22 October 2020 - 12:00 - 13:30 (CET)</b>
Workshop on Phosphates for Sustainable Development: Fertilizers and Phosphogypsum in the Circular Economy
<b>23 October 2020 - 12:00 - 13:00 (CET)</b>
Workshop on the Sampling and Radiological Characterization of NORM Residues and Wastes
<b>26 October 2020 - 14:00 - 16:00 (CET)</b>
NORM 2020 Discussion Lobby – The Circular Economy in the Context of the Sustainable Development – Its Meaning to the NORM Industry
<b>27 October 2020 - 12:00 - 13:30 (CET)</b>
Workshop of Groundwater 360°
<b>28 October 2020 - 12:00 - 13:00 (CET)</b>
Workshop on Communicating the Radiological Risks of NORM
<b>29 October 2020 - 12:00 - 13:30 (CET)</b>
Exhibitors Workshop

**Draft programme**

**Workshops**

<https://www.iaea.org/events/norm-2020>

**Secretariat: [NORM2020@iaea.org](mailto:NORM2020@iaea.org)**

# International Conference on Radiation Safety: *Improving Radiation Protection in Practice*

## (Virtual event) International Conference on Radiation Safety: Improving Radiation Protection in Practice

9–20 November 2020

### International Conference on Radiation Safety 2020

- > Home
- > Young Professionals
- > Programme
- > News

Owing to the COVID-19 outbreak, this conference will now be held virtually.

Participants who would like full access to the virtual conference platform, must be officially designated and can register by sending Participation Form (Form A) through their national authority (please refer to the Announcement and Call for Papers) to the IAEA. Participants who take an active role in the event, like chairpersons or presenters of an oral or poster paper have to be officially designated.

Participants who would like limited access to the virtual conference platform, can register as an observer by submitting Form A directly to the IAEA. Observers have access to conference related material (e.g. abstracts, presentations, posters) and to other limited functions within the virtual conference platform such as the Young Professional Programme.

Persons who simply would like to follow discussions during the conference can do so via the live-stream button which will be available on this website.

The IAEA is organizing the International Conference on Radiation Safety: Improving Radiation Protection in Practice virtually from 9 to 20 November 2020. The Conference is being organized in cooperation with the European Commission, the Food and Agriculture Organization of the United Nations, the International Labour Organization, the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development, the Pan American Health Organization, the United Nations Environment

Live  
Video Stream >

### Related resources

- Programme
- Announcement and Call for Papers
- Participation Form (Form A)
- Exhibition Opportunities
- List of Invited Organizations
- INDICO submissions
- Guidelines for Technical Sessions
- Guidelines for Virtual Poster Presentations

### Conference App



PROVISIONAL PROGRAMME  
International Conference on Radiation Safety: Improving Radiation Protection in Practice  
9–20 November 2020 (Virtual Event)

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
08:00–11:00 CDT		Young Professional Development Forum: Radiation Safety Role Models & Virtual Networking (Closed Session)			
11:00–13:00 CDT	Opening Session: Assessing the Challenges of Certification and Optimization	Building the Critical Elements	Global Session: Global Session: Global Session: Global Session		
13:00–13:30 CDT	BREAK				IAEA Agency Global Session of Experts: Enhancing engagement in the virtual conference platform. Registration on the Official IAEA Application – 10:00 AM
13:30–14:00 CDT	Opening Session: Global Session: Global Session: Global Session	Open Consultative and Informal Sessions	Global Panel: Global Panel: Global Panel: Global Panel	Global Panel: Global Panel: Global Panel: Global Panel	
14:00–14:30 CDT					
14:30–15:00 CDT		Young Professional Development Forum: Radiation Safety Role Models & Virtual Networking (Closed Session)			

To see your local time, please click on the unlabelled session title.

PROVISIONAL PROGRAMME  
International Conference on Radiation Safety: Improving Radiation Protection in Practice  
9–20 November 2020 (Virtual Event)

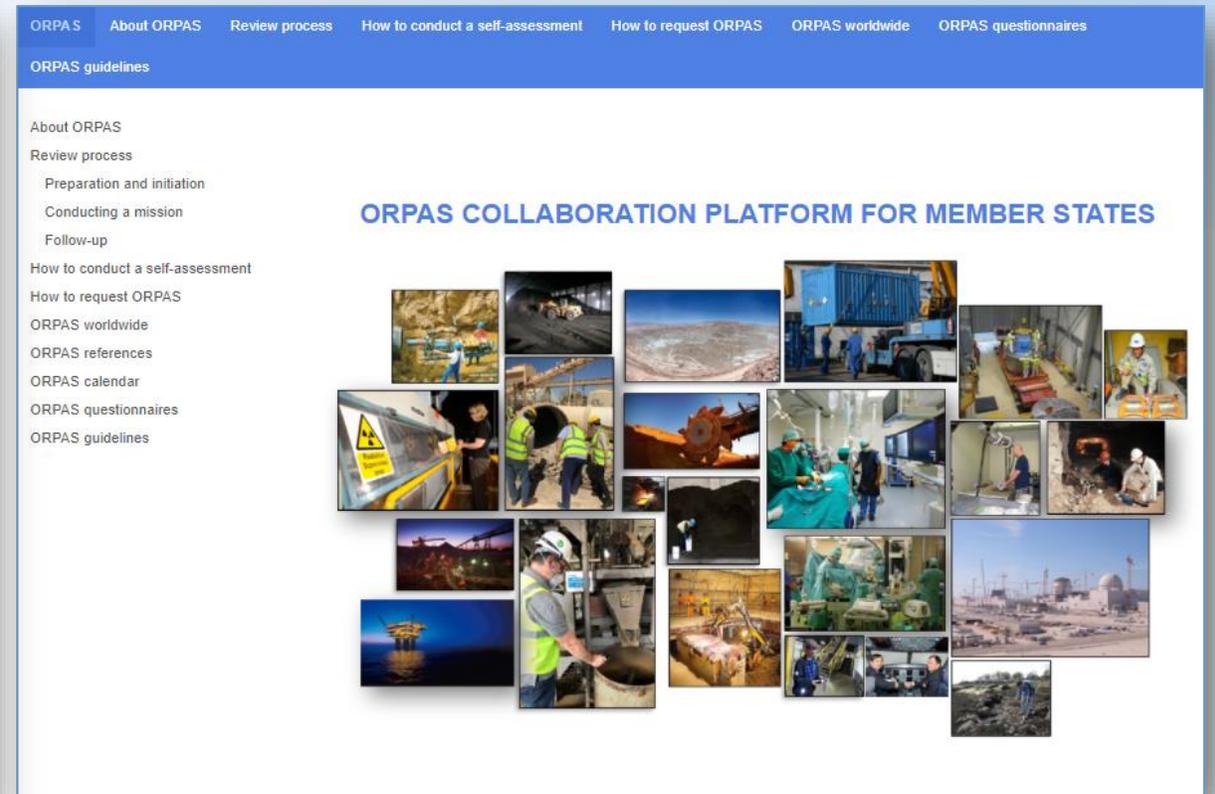
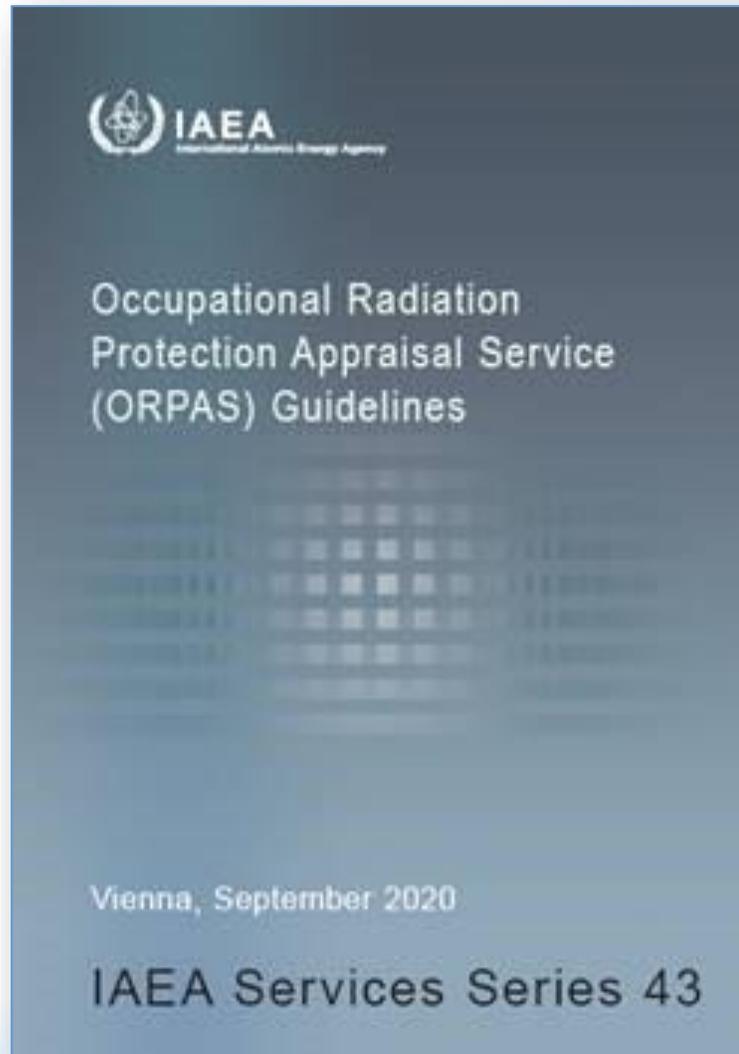
TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
11:00–13:00 CDT	Emergency Annexes: Emergency Annexes: Emergency Annexes: Emergency Annexes	Conversations in Informal Sessions	IAEA Agency Global Session of Experts: Enhancing engagement in the virtual conference platform. Registration on the Official IAEA Application – 10:00 AM	Global Safety Conference: Global Safety Conference: Global Safety Conference: Global Safety Conference	Closing Session
13:00–13:30 CDT	BREAK				
13:30–14:00 CDT	IAEA Agency Global Session of Experts: Enhancing engagement in the virtual conference platform. Registration on the Official IAEA Application – 10:00 AM	Global Safety Conference: Global Safety Conference: Global Safety Conference: Global Safety Conference	Global Safety Conference: Global Safety Conference: Global Safety Conference: Global Safety Conference	Global Safety Conference: Global Safety Conference: Global Safety Conference: Global Safety Conference	

Info on local time

<https://www.iaea.org/events/international-conference-on-radiation-safety-2020>

Secretariat: [RP2020@iaea.org](mailto:RP2020@iaea.org)

# New Publication: **ORPAS Guidelines**



<https://gnssn.iaea.org/main/ORPAS/SitePages/Home.aspx>

<https://www-pub.iaea.org/MTCD/Publications/PDF/SVS-43web.pdf>



# Occupational Radiation Protection **NET**works

Thank you for your participation

IAEA ORPNET: <https://nucleus.iaea.org/sites/orpnet/home/SitePages/Home.aspx>

IAEA ORP Webinars: <https://www.iaea.org/topics/radiation-safety/webinars>



Register for  
ORPNET Newsletter

We invite proposal submissions for consideration in our ORP webinar series

Contact us at [Occupational-Protection-Unit.Contact-Point@iaea.org](mailto:Occupational-Protection-Unit.Contact-Point@iaea.org)