



IAEA

International Atomic Energy Agency
Atoms for Peace and Development

Free Webinars on Occupational Radiation Protection

📅 27 May 2020, ⌚ 4-5 pm CET



27 May 2020

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



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ORPU / RSTSU Webinar

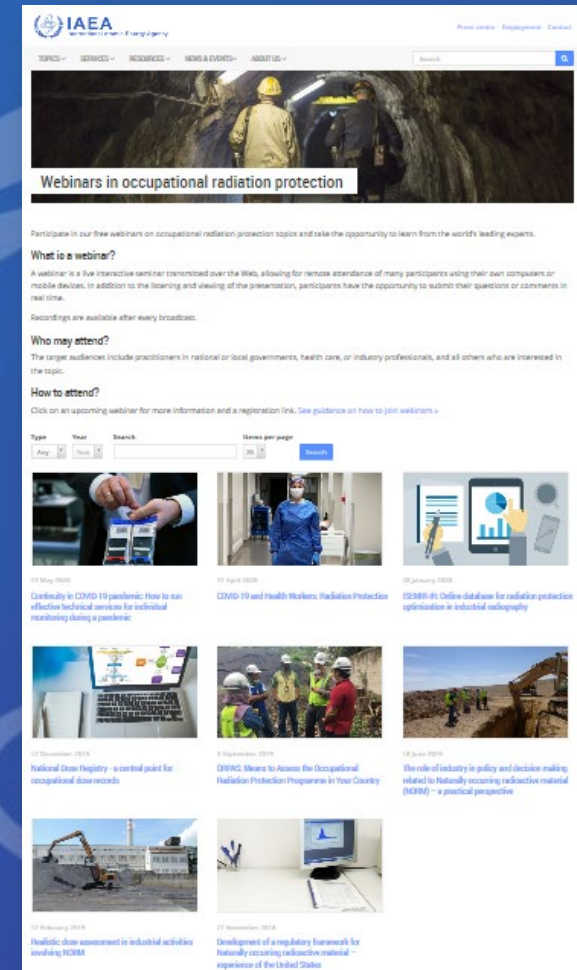


27 May 2020

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

Organized jointly with

- European Radiation Dosimetry Group
- Greek Atomic Energy Commission



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





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Welcome to the ORP webinar organized in collaboration with RSTSU

📅 27 May 2020 ⌚ 4-5 pm CET

Moderator: H. Burçin Okyar
Occupational Radiation Protection Unit, NSRW/IAEA



27 May 2020

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



Radiation Safety Technical Services

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



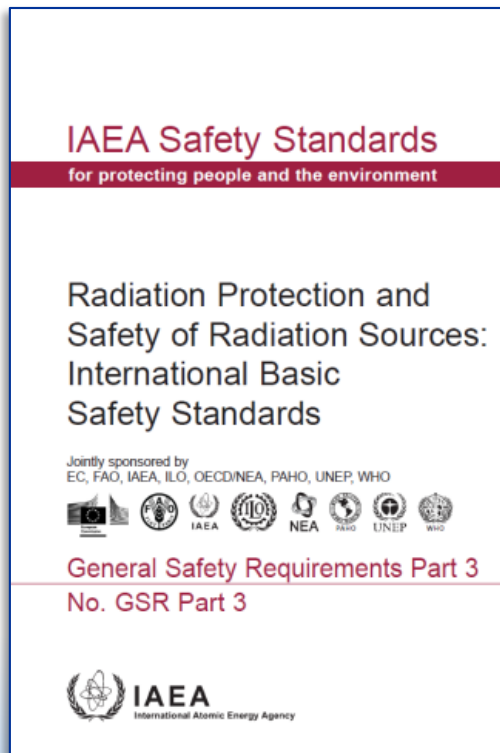
Welcome note from David Tucker Head of Radiation Safety Technical Service Unit

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



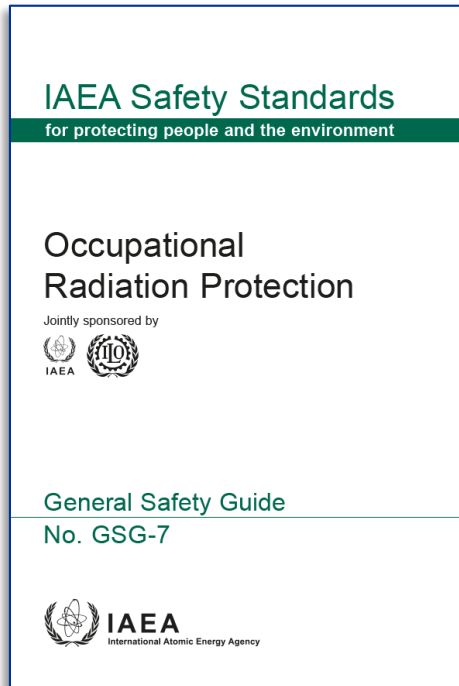
International Basic Safety Standards

- An integrated and consistent set of Safety Requirements that establishes the requirements that must be met to ensure the protection of people and the environment, both now and in the future.



- GSR Part 3 (BSS) follows ICRP 103 recommendations
- Protection and Safety requirements of the GSR Part 3 apply to all facilities and activities
- **Planned, emergency and existing exposure situations**
- **Occupational**, public and medical exposure categories
- 52 overarching requirements – for **governments, regulatory bodies, industry, health and safety professionals, workers, public and service providers** (technical support organizations)
- **12 requirements for ORP**; Control, monitoring and recording
- **Regulatory body, TSPs & Operators**
- The regulatory body shall be responsible, as appropriate, for authorization or approval of service providers for individual monitoring and calibration services

GSG-7: TSP categories



- Any technical service providers for protection and safety should be qualified by certain procedures.

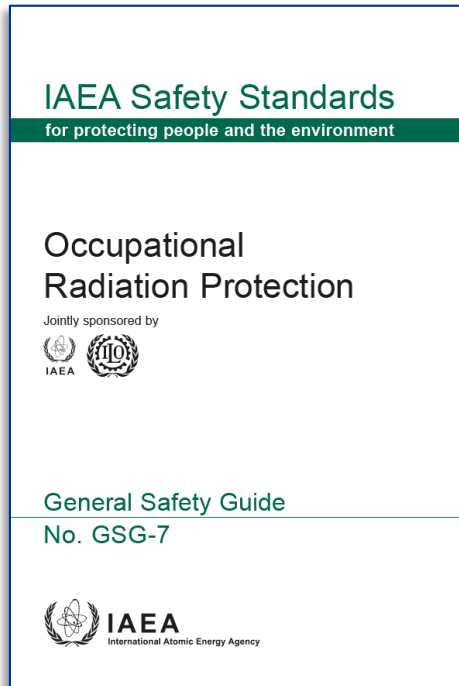
Calibration and testing/assay services

- Monitoring (individual, workplace and environmental)
- Calibration and calibration verification for monitoring devices and radiation sources

Consultancy and maintenance

- Radiation safety consultancy
 - Shielding calculations
 - Modelling for dose assessment, containment and ventilation
 - Maintenance services (in-house & contracted)
 - Decontamination
- Organization or organizational unit designated, or otherwise recognized by a regulatory body and/or a government, to provide expertise and services to support nuclear and radiation safety and all related scientific and technical issues.

GSG-7: Management systems



- The management system of a TSP using radiation should meet the requirements and recommendations of all relevant IAEA safety standards
- The management system for TSPs should be graded to the scope of their activities
- Documentation include policies, processes and procedures, and instructions
- Any new features to be included ...

Today's Learning objectives

Participants of the webinar will learn about:

- Adoption of the IAEA GSR Part 3 requirements and GSG-7 guidance for technical service providers during the current COVID-19 pandemic
- EURADOS recommendations for technical service providers to deal with the COVID-19 pandemic
- Strategies for practical implementation by service providers
- Experience of the IAEA Radiation Safety Technical Services and measures for the continuity of operations



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Today's Speakers: Filip Vanhavere

Head of the Radiation Protection Dosimetry and Calibration Group

Since 2018, Deputy Director of the Institute of Environment, Health and Safety at the SCK CEN

Elected EURADOS Chair





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Today's Speakers: Eleftheria Carinou

Medical Physicist, MSc, PhD.

Deputy Director of the Division of Licensing and Inspections & Head of Personal Dosimetry Department of Greek Atomic Energy Commission





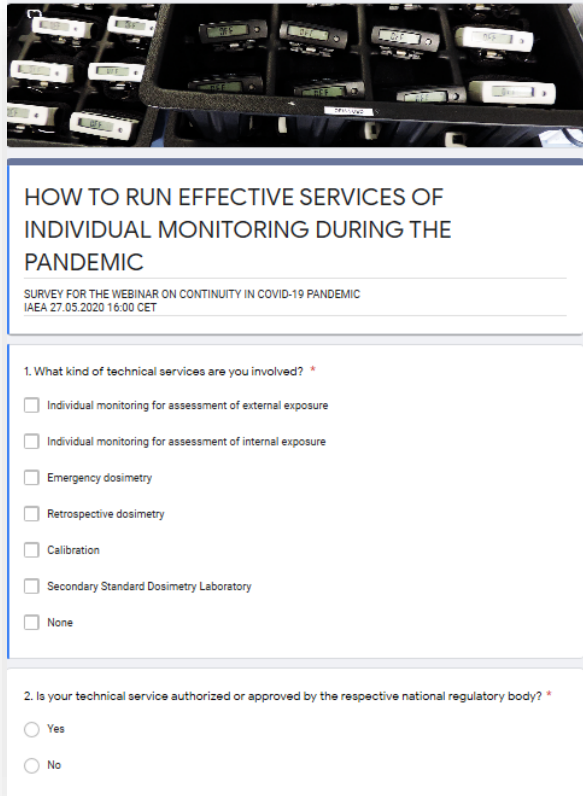
Radiation Safety Technical Services

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



Today's Speakers:
Michael Hayek
External Dosimetry Specialist

Preliminary assessment of the brief survey results



HOW TO RUN EFFECTIVE SERVICES OF INDIVIDUAL MONITORING DURING THE PANDEMIC

SURVEY FOR THE WEBINAR ON CONTINUITY IN COVID-19 PANDEMIC
IAEA 27.05.2020 16:00 CET

1. What kind of technical services are you involved? *

- Individual monitoring for assessment of external exposure
- Individual monitoring for assessment of internal exposure
- Emergency dosimetry
- Retrospective dosimetry
- Calibration
- Secondary Standard Dosimetry Laboratory
- None

2. Is your technical service authorized or approved by the respective national regulatory body? *

- Yes
- No

- 10 questions to understand the participant's practices & measures introduced during COVID-19
 - Type of Services
 - Authorization/approval
 - Continuity during C-19 (monitoring period, use of PPE, new procedures, etc.)



Roman Abutalipov
Associate Radiation Safety Officer

1. What kind of technical services are you involved?

- Individual monitoring for assessment of external exposure
- Individual monitoring for assessment of internal exposure
- Emergency dosimetry
- Retrospective dosimetry
- Calibration
- Secondary Standard Dosimetry Laboratory
- None

39.3 %

- Individual monitoring for assessment of external exposure
- Individual monitoring for assessment of internal exposure
- Emergency dosimetry
- Retrospective dosimetry
- Calibration
- Secondary Standard Dosimetry Laboratory
- None

6.6 %

- Individual monitoring for assessment of external exposure
- Individual monitoring for assessment of internal exposure
- Emergency dosimetry
- Retrospective dosimetry
- Calibration
- Secondary Standard Dosimetry Laboratory
- None

6.6 %

- Individual monitoring for assessment of external exposure
- Individual monitoring for assessment of internal exposure
- Emergency dosimetry
- Retrospective dosimetry
- Calibration
- Secondary Standard Dosimetry Laboratory
- None

3.3 %

- Individual monitoring for assessment of external exposure
- Individual monitoring for assessment of internal exposure
- Emergency dosimetry
- Retrospective dosimetry
- Calibration
- Secondary Standard Dosimetry Laboratory
- None

4.9 %

- Individual monitoring for assessment of external exposure
- Individual monitoring for assessment of internal exposure
- Emergency dosimetry
- Retrospective dosimetry
- Calibration
- Secondary Standard Dosimetry Laboratory
- None

3.3 %

95%

2. Is your technical service authorized or approved by the respective national regulatory body? *

Yes

No

3. For which of the following radiation types are you able to provide a dosimetry service?

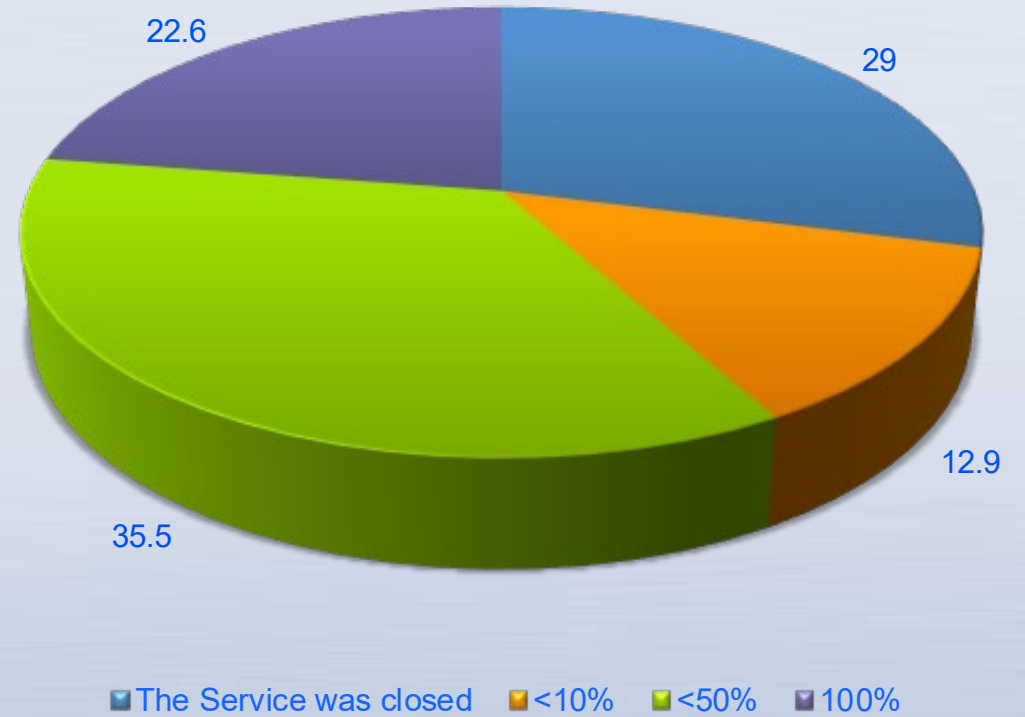
Photon radiation
 Beta radiation
 High energy neutrons
 Intermediate energy neutrons **23 %**
 Thermal neutrons
 In-vivo
 In-vitro

Photon radiation
 Beta radiation
 High energy neutrons
 Intermediate energy neutrons **27.9 %**
 Thermal neutrons
 In-vivo
 In-vitro

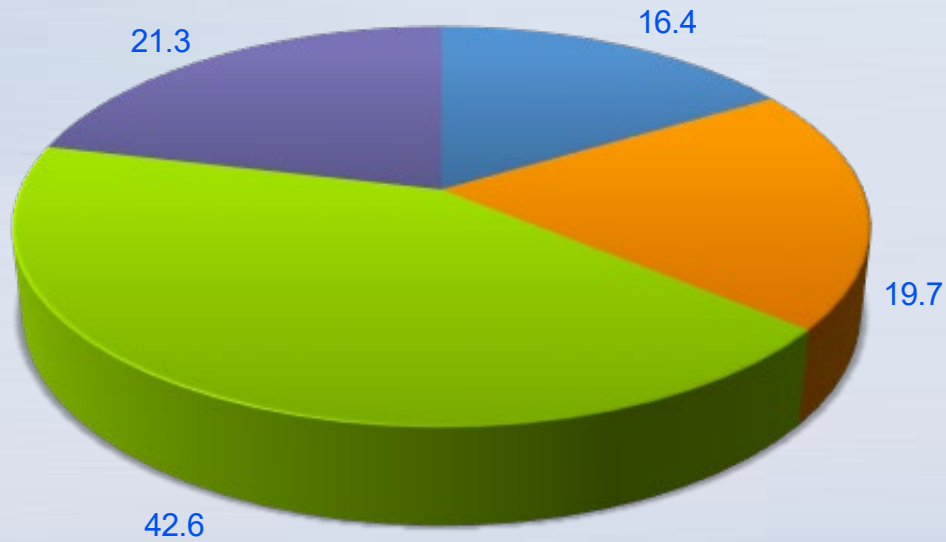
Photon radiation
 Beta radiation
 High energy neutrons
 Intermediate energy neutrons **4.9 %**
 Thermal neutrons
 In-vivo
 In-vitro

Photon radiation
 Beta radiation
 High energy neutrons
 Intermediate energy neutrons **6.6 %**
 Thermal neutrons
 In-vivo
 In-vitro

4. What percentage of staff continued work in the technical service during the COVID-19 quarantine period?

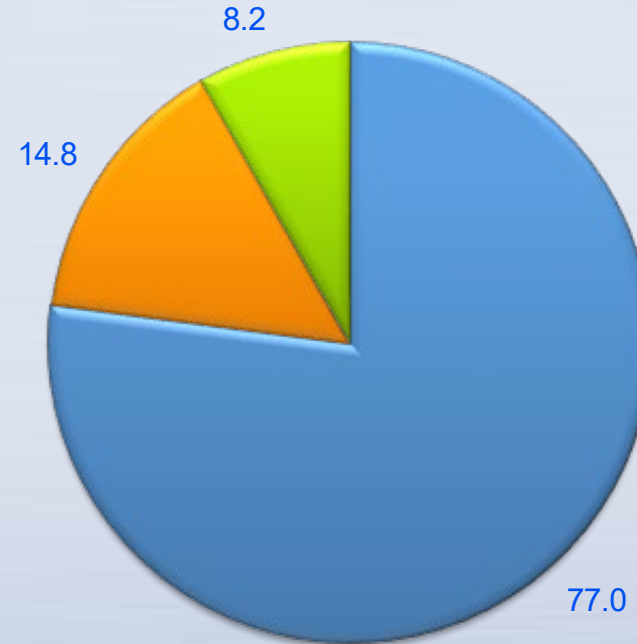


5. Did you use any supplementary personal protective equipment (PPE) for staff protection?



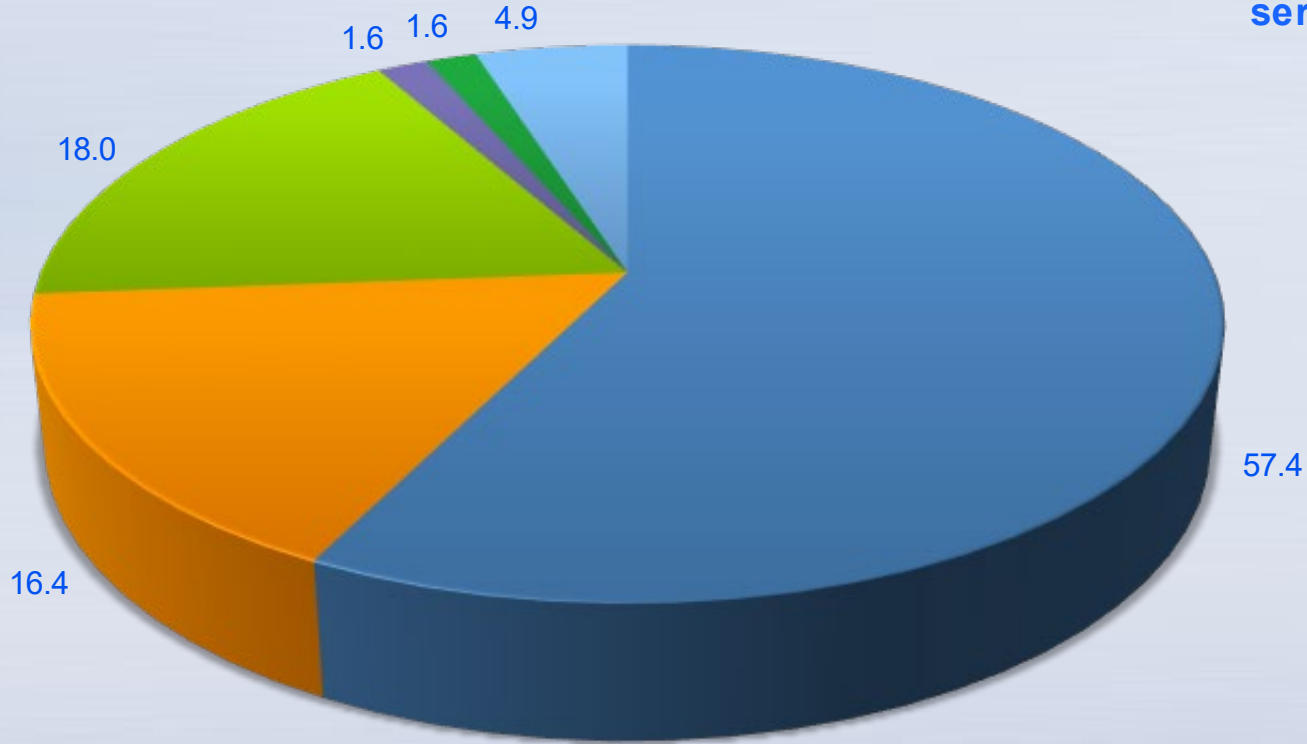
- No
- Yes, eyeglasses/screens and masks
- Yes, masks
- Yes, masks and gloves

6. Did you apply any additional measures to collect/ to ship badges or any other types of samplers?



- No
- Yes, contactless shipment
- Quarantine and hydroalcoholic solution

7. Did you extend your monitoring period?



■ No
 ■ Yes, up to 2 months
 ■ Yes, up to 3 months
 ■ Yes, up to 6 months
 ■ Not yet specified
 ■ Yes, up to 45 days

8. Did you develop any written procedure in your technical service (e.g. performing disinfection of dosimeters) for the protection of workers under COVID-19 pandemic?



■ No
 ■ Yes

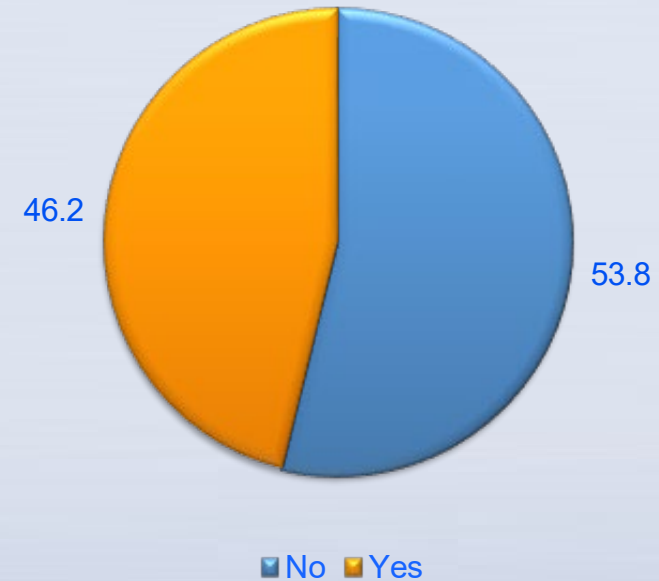
100% had no contamination incidents

9. Did you have any incidents/accidents in the period of COVID-19 pandemic involving personal or equipment contamination? *

No

Yes

10. Do you need any additional guidance material for safe operation of your service under pandemic conditions?



- Laboratory operation during virus pandemic (including infection control protocol)
- Handling and disinfection of the dosimeters (including facial samples, dosimeters from hospitals)

Upcoming webinars

Topics to be addressed;

- Individual monitoring with radiophotoluminescence (RPL) passive dosimeters
- Individual monitoring with optically stimulated luminescence (OSL) passive dosimeters
- Thermoluminescent Dosimeters (TLD) and maintenance of readers
- Establishment and Operation of Management Systems for TSPs
- Surface contamination monitoring and calibration
- Internal dosimetry – State of the art practices (In-vivo & in-vitro)
- Artificial intelligence, virtual reality – how these affecting worker protection
- Personal Protective Equipment- Lessons learned from the shortage during the COVID-19 pandemic
- 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>



Occupational Radiation Protection **NET**works

Thank you for your participation



Register for
ORPNET Newsletter

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

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

We invite proposal submissions for consideration in our webinar series

Contact us at Occupational-Protection-Unit.Contact-Point@iaea.org