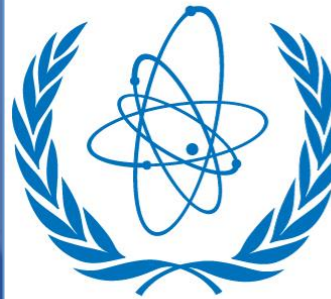




IAEA

International Atomic Energy Agency
Atoms for Peace and Development



IAEA

Occupational
Radiation Protection
Networks

ORPNET


H. Burçin Okyar

Occupational Radiation Protection Unit

Radiation Safety & Monitoring Section, NSRW

ORPNET

Home / Services / Networks / Occupational Radiation Protection Network (ORPNET)



Occupational Radiation Protection Network (ORPNET)

[Networks](#)

The Occupational Radiation Protection Network (ORPNET) is a web-based network that promotes the optimization of occupational radiation protection. It provides comprehensive information about worldwide, regional and national networks and systems related to the radiation protection of workers, and it enables participating networks to cooperate with each other. Information about upcoming meetings, new publications, joint projects, posters and other related news is also featured.

Through ORPNET, participants share good practices and facilitate the implementation of radiation protection measures that make exposure as low as reasonably achievable – a principle known by its abbreviation ALARA. The network also supports experience exchange and aims to enable users to ensure that activities at the national and international level complement each other.

Exposure of workers to radiation can occur as a result of various human activities, including work associated with the nuclear fuel cycle, the use of radioactive sources and X ray machines in medicine, scientific research, agriculture and industry. Workers who handle materials containing enhanced concentrations of naturally occurring radionuclides also can be exposed. Adequate radiation protection of workers is essential.

ORPNET was established in 2010, as a result of an IAEA and International Labour Organization Action Plan that had been created following a request in a resolution adopted at the 2002 IAEA General Conference. The resolution took into account the findings and recommendations from the first International Conference on Occupational Radiation Protection, held in 2002.

Two worldwide networks, the International System on Occupational Exposures (ISOE) the Information System on Occupational Exposure in Medicine, Industry and Research (ISEMIR) are part of ORPNET, as are regional networks including the European ALARA Network (EAN), the European ALARA Network for Naturally Occurring Radioactive Materials (EAN NORM) and the European Medical ALARA Network (EMAN).

Other participants include regional networks originally set up by the IAEA, including Regional European and Central Asian ALARA Network, the Asian ALARA Network (ARAN) and the Network to Optimize Occupational Radiological Protection in Latin America (REPROLAM).

ORPNET was further developed and adapted in line with discussions at the 2012 and 2014 International and Regional ALARA Networks Coordination Meetings, and at a side event of the second International Conference on Occupational Radiation Protection, held in 2014.


Publications

7 April 2020
Occupational Radiation Protection in the Uranium Mining and Processing Industry

12 October 2018
Radiation Protection and Safety in Medical Uses of Ionizing Radiation

ORPNET What is ORPNET? Worldwide Networks Regional Networks Additional Resources Training

Home



News

2022 ISOE International Symposium

The European Technical Centre of the Information System on Occupational Exposure (ISOE) will be holding an international symposium in collaboration with Electricite de France (EDF), OECD Nuclear Energy Agency (NEA) and the International Atomic Energy Agency (IAEA) on **21-23 June 2022 in Tours, France**. This symposium will target all those concerned with radiological protection at nuclear power plants: radiation protection managers and staff members, maintenance and operation planners, contractors, exposed workers, regulatory body representatives and international organizations. Technical Exhibitions will give participants the opportunity to see the latest developments from industrial and commercial companies active in fields of radiation protection. Prior to the symposium, on Monday 20 June 2022, two meetings devoted to specific audiences have been organised: Radiation Protection Managers Meeting and a Regulatory Body Representatives Meeting.

[Link to Programme >>](#) [Registration >>](#) [Link to ISOE Website >>](#)

MEDIRAD launches a series of recommendations to enhance the protection of patients and staff exposed to low doses of radiation

MEDIRAD is a research project funded by EURATOM under Horizon 2020 Programme with the overall aim of enhancing the scientific basis and clinical practice of radiation protection in medicine, in particular by better understanding and evaluating the health effects of exposure to low-dose ionising radiation resulting from diagnostic and therapeutic procedures. MEDIRAD launches a series of **recommendations to enhance the protection of patients and staff exposed to low doses of radiation**. The priorities were grouped into four major topics: consolidating patient data repositories across Europe; optimising radiation-based protocols for diagnostics and therapy; further optimising radiation protection for patients and staff; and guiding future radiation protection research in Europe.

[Recommendations Documents Here >>](#) [Policy Brief Here >>](#) [More Information >>](#)

EURADOS: Launch of Survey of Individual Monitoring Services (IMS)

The EURADOS Working Group 2 – Harmonization of Individual Monitoring in Europe – has launched a Survey of Individual Monitoring Services (IMS). This survey was developed in collaboration with the International Organization for Standardization (ISO) WG19 'Individual monitoring of external radiation' elaborating standards dealing with personal dosimetry, in order to have an up-to-date photography of the routine practice, that could be very valuable inputs to help writing some ISO standards. To this end, we are asking for your help by responding to a survey of IMSs. If you are interested to participate, please complete the questionnaire, before 15th April 2022 at the latest, by clicking here. Please fill out this form online.

[Link to Survey Questionnaire >>](#) [Invitation Letter >>](#)

New Job Posting within the IAEA: Regulatory Standards Specialist (P4)

The Radiation Protection Unit within the Division of Radiation, Transport and Waste Safety is looking for a new Regulatory Standards Specialist to advise and assist in the development and implementation of the IAEA programme for establishing radiation safety standards and providing for their application in Member States.

[More Information about the Job Posting Here >>](#)

IAEA Marie Skłodowska-Curie Fellowship Programme to begin accepting applicants

The IAEA Marie Skłodowska-Curie Fellowship Programme (MSCFP) will be opening its application call mid-July 2022 and will close by beginning of October 2022. This programme, launched in 2020 by the IAEA Director General in an effort to increase the number of women in the nuclear field, supports an inclusive workforce of men and women who contribute to and drive global scientific and technological innovation. The selected students are awarded up to €20,000 for tuition costs and up to €20,000 for living costs for their Master's programme. Additionally, students are provided with opportunities to attend and participate in various educational, professional and networking events.

[Fellowship Flyer >>](#) [Fellowship Poster >>](#) [Link to Fellowship Programme Page >>](#) [Information for Applicants >>](#)

NORMX Update: Symposium will be organized Face-to-Face

Most COVID-19 restrictions have been lifted (and more restrictions are expected to be lifted in the near future) in the Netherlands. In this respect we are happy to announce that the **10th international NORM symposium (NORM X)** will be a **FACE-to-FACE meeting from May 9 till 13** in Utrecht, the Netherlands. This Symposium, co-organised with the IAEA and supported by a variety of international organisations, will focus on circular economy of industrial NORM residues developments vs. traditional 'cradle to grave' approaches.

The call for abstracts for **NORM X** is still open, but you better hurry up as the deadline of March 1 is approaching. The deadline for **normal registrations** is **April 1**, after which the late minute fee for registration applies. For the full preliminary program, incl. NORM refresher courses, please visit the NORM X website at www.NORMX2022.com.

[Link to Registration Page >>](#) [Netherlands Covid Entry Requirements >>](#) [NORMX Abstract Submission Link >>](#)

Oil and Gas Industry Survey

The survey mainly targets operators and contractors, so called "Oil and Gas". The survey is available in five languages:


- Arabic (online version)
- Chinese (online version)
- English (online version)
- French (online version)
- Russian (online version)

Resources

- Latest newsletter
- E-Learning Modules
- Workers in perspective
- How can workers be protected from natural radiation? (VIDEO)
- How can workers be protected from natural radiation? (PHOTO ESSAY)
- The Information System on Occupational Exposure in Medicine, Industry and Research (ISEMIR)
- Publications
- Posters and Factsheets
- CRP Webinars
- Personal Online Dosimetry Using computational Methods (PODIUM)
- Dose management system (DMS)

Register for ORPNET

Events & Meetings



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

<https://www.iaea.org/services/networks/orpnet>

Occupational Radiation Protection Action Plan



- The first International Conference on Occupational Radiation Protection (2002) hosted by the Government of Switzerland, held in Geneva
- Findings & recommendations: http://www-ns.iaea.org/downloads/rw/meetings/geneva_conf.pdf
- September 2002, IAEA General Conference, request for the IAEA's Director General, in co-operation with the ILO and other relevant bodies, to formulate and implement an Action Plan
- Action Plan for Occupational Radiation Protection
<http://www-ns.iaea.org/downloads/rw/ppss/action-plan-orp2003.pdf>
- Steering Committee with the overall remit to advise on, monitor, and assist in the practical implementation of the Action Plan
- Participants: Representatives of a number of interested MSs and interested IOs including employers' and workers' organizations

Actions

- Actions for strengthening ORP worldwide are grouped according to nine areas that provide a logical division of tasks to be carried out:
 - Promoting and servicing the Radiation Protection Convention, 1960 (No. 115)
 - Co-operation between the IAEA and ILO in reaching developing countries
 - Establishment of occupational safety standards and development of supporting
 - Support for strengthening regulatory infrastructures
 - Peer review missions to appraise occupational radiation protection
 - Intercomparisons of monitoring methods for assessing occupational exposure
 - Promotion of information exchange
 - Exposure to enhanced natural radiation in the workplace
 - Promotion of a holistic approach to workplace safety
 - Formulation and application of standards for the protection of pregnant workers and their embryos and fetuses
 - Education and training

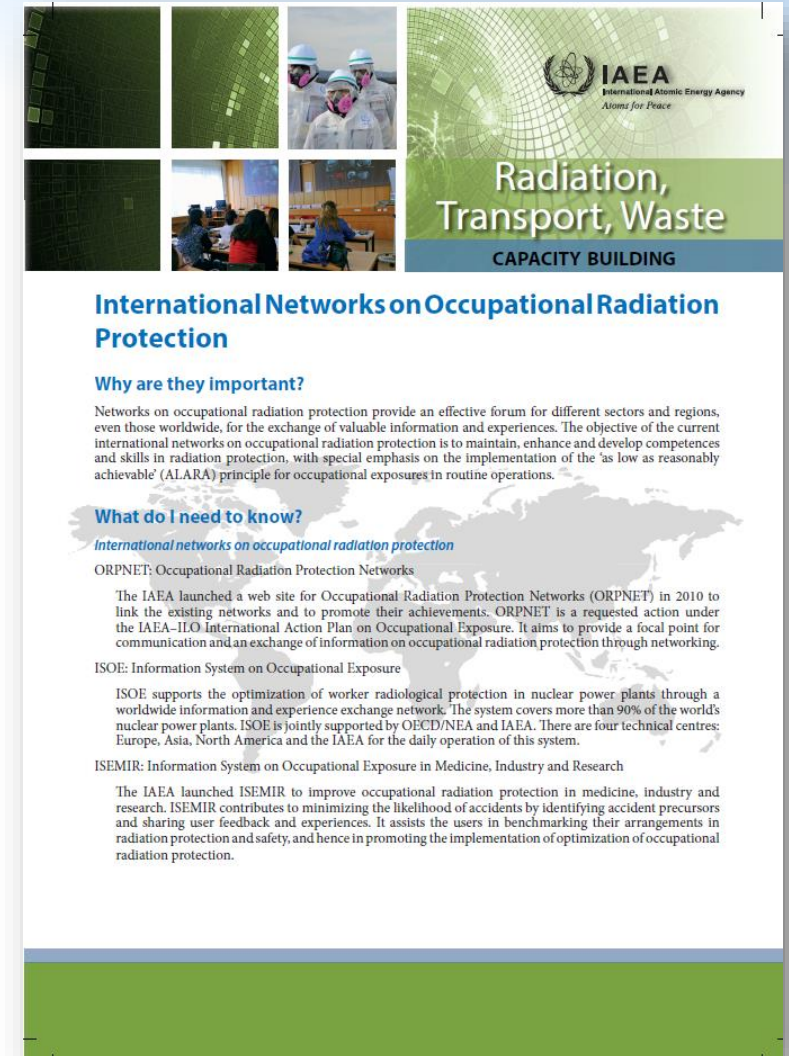
Initiation – web site



- As an outcome of the IAEA/ILO International Action Plan on Occupational Exposure, **the Occupational Radiation Protection Networks website** has been established in 2010 as a shared platform providing perspective for improving occupational radiation protection worldwide
- Development and progress of ORPNET was discussed during the International and Regional ALARA Networks Coordination Meetings, which were organized by the IAEA in 2012 and 2014 and contributed by the representatives of international and regional networks

ORPNET, in principal

- ORPNET is a web-based network with an ultimate goal to **promote optimization of the occupational radiation protection**.
- It acts as a **focal point** for the occupational radiation protection providing:
 - comprehensive knowledge about worldwide
 - regional and national networks and systems for radiation protection of workers
 - ORPNET spreads good practices, facilitates ALARA (optimization) implementation, supports experience exchange, and aims to prevent any overlap of activities at the national and international level



ORPU / ORPNET- New

IAEA launches new online training course in occupational radiation protection

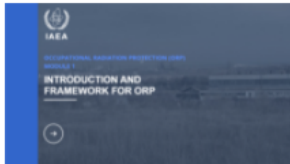


The IAEA has released new training material on occupational radiation protection. The material is based on GSG-7, which provides general guidance on the development of occupational radiation protection programmes in accordance with the requirements of GSR Part 3, and addresses the sources of radiation likely to be encountered in workplaces.

The course is publicly available in English within the IAEA's learning management system.

[View the course >>](#)

Occupational Radiation Protection based on General Safety Guide No. GSG-7



The purpose of this course is to increase understanding of the occupational exposure control requirements contained in GSR Part 3 and how these safety standards fit within the IAEA Safety Standards hierarchy. Participants will learn how to fulfil the requirements of GSR Part 3 with respect to occupational exposure and GSG-7 recommendations relating to planned, existing and emergency exposure situations for occupational exposure.

The course contains 10 modules and covers:

- Framework for occupational radiation protection;
- Exposure of workers in different exposure situations;
- Monitoring and recording;
- Assessment of occupational exposures;
- Management system for service providers;
- Occupational exposure control measures;
- Protection of workers in special cases
- Workers' health surveillance.

This e-learning course was funded under the IAEA Regional Technical-Co-operation Project on Enhancing National Capabilities on Occupational Radiation Protection in Compliance with Requirements of the International Basic Safety Standards (RAS/9/080).

<https://elearning.iaea.org/m2/>

IAEA launches second online training course in occupational radiation protection




The course entitled Management and Control of Naturally Occurring Radioactive Material (NORM) provides guidance based on GSG-7 on fulfilling the requirements of GSR Part 3 with respect to worker protection in industrial processes/operations involving NORM. The course includes 15 modules, takes around 7 hours to complete and offers guidance on: regulatory control (focusing on the application of a graded approach); the characterization of NORM and the assessment of exposures; and the transport of NORM.

Before taking this course, participants are advised to complete the training on [Occupational Radiation Protection based on General Safety Guide No. GSG-7](#).

The course is publicly available in English within the IAEA's learning management system and offers a certificate of completion.

[View the course >>](#)


 **IAEA** | Learning Management System
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OPEN-LMS English (en) ▾

Home > Courses > Nuclear Safety & Security > Nuclear Safety > Occupational Radiation Protection > Management and Control of Naturally Occurring Radioactive Material (NORM)

Enrolment options

Management and Control of Naturally Occurring Radioactive Material (NORM)



Natural resources that are extracted from the ground such as coal, oil, natural gas and other mineral ores contain various amounts of natural radioactivity. When these resources are extracted and processed, their natural state can be modified which may result in the enhancement of the natural radioactivity content originally present. Such enhancements may be observed in the residues or the waste created and/or in the products or by-products and are sometimes high enough to pose a risk to workers, members of public and the environment if they are not controlled properly. Materials of this kind are commonly referred to as Naturally Occurring Radioactive Material or NORM.

The International Basic Safety Standards (GSR Part 3) establishes requirements for industrial activities involving NORM. For the application of the IAEA Safety requirements on NORM activities, consideration needs to be given to radiation protection of workers, the public and the environment for a wide range of industrial activities on a global basis.

This e-learning course provides guidance based on GSG-7 on fulfilling the requirements of GSR Part 3 with respect to worker protection in industrial processes/operations involving NORM.

The course includes 15 modules and covers:

- Overview of natural radionuclides and NORM;
- Overview of the industrial activities involving NORM and an indication of those that are most likely to require regulatory consideration;
- Guidance on regulatory control (focusing on the application of a graded approach);
- Radiation protection issues for workers and the public associated with materials containing NORM;
- Guidance on the characterization of NORM and the assessment of exposures;
- Guidance on the management of NORM residues and the disposal options for NORM wastes;
- Guidance on the transport of NORM.

This e-learning course was funded under the IAEA Regional Technical-Co-operation Project on Enhancing National Capabilities on Occupational Radiation Protection in Compliance with Requirements of the International Basic Safety Standards (RAS/9/080).

Before taking this course, participants are advised to complete the training on [Occupational Radiation Protection based on General Safety Guide No. GSG-7](#).

Development and release of the Dose Management system



- A new Dose Management System (DMS) for the Member States has been released by the IAEA and detailed information is available at ORPNET.
- The DMS provides a tool for dose information management in the dosimetry service laboratories.
- Member States can get the system through official channel after signing the Acceptance Form
- The DMS has been released to about 20 Member States.

ORPNET – house for global surveys

Occupational Radiation Protection NETWORKS

News

IAEA questionnaires on occupational exposures to NORM in the water supply and treatment industry



The Information System on Occupational Exposure in Medicine, Industry and Research has been developed by the International Atomic Energy Agency (IAEA) to enable the assessment of the impact of various radiation protection actions in different facilities and activities and forms a database containing detailed information on operational occupational doses for comparison and benchmarking of doses for specific occupations, functions and tasks and has been extended for industrial processes involving naturally occurring radioactive material (ISEMIR-N).

In response to the IAEA General Conference Resolution GC(64)/RES/9, requesting the Secretariat to strengthen their capabilities for the realistic assessment of radiological impacts of material containing enhanced levels of NORM, the IAEA has launched a global survey specific to the water supply and treatment industry as a part of ISEMIR-N.

The questionnaires are available for download in six languages and should be completed and returned by email to ISEMIR-N.Contact-Point@iaea.org. Online versions are available in English for [operators](#) and [regulatory bodies](#). Deadline: **15 March 2021**.

NORM questionnaires

IAEA global questionnaire on occupational exposures to NORM in the water supply and treatment industry. All operators and regulatory bodies are invited to submit their information by 15 March 2021.

Questionnaire for operators to download:

Arabic
Chinese
English (online version)
French
Russian
Spanish

Questionnaire for regulatory bodies to download:

[Letter to Head of Regulatory Authority >>](#)

Arabic
Chinese
English (online version)
French
Russian
Spanish



ORPNET – web-based networks – promotes optimization of occupational radiation protection. The newsletter brings you updates on radiation protection of workers from worldwide, regional and national networks and systems in this area.

News – April 2021



New IAEA online course on Occupational Radiation Protection

Training on the occupational exposure control requirements contained in IAEA International Basic Safety Standards (BSS) Part 3



New IAEA online course on Naturally Occurring Radioactive Material

Course based on IAEA General Safety Guide (No. GSG-7), on fulfilling the worker protection requirements of BSS Part 3



NORM X symposium 9–13 May 2022, Utrecht

The 10th International Symposium is entitled '25 years of NORM Symposium: Future materials applied in a circular economy'



AFAN-IAEA webinars 14 and 28 April 2021, 9am GMT

Two joint webinars on 'radiation protection optimization in industrial radiography' and 'current and practice of internal dosimetry'



News: IAEA chairs Inter-Agency Committee on Radiation Safety

The committee set out two main priorities for the next 18 months towards the harmonization of guidance on radiation safety

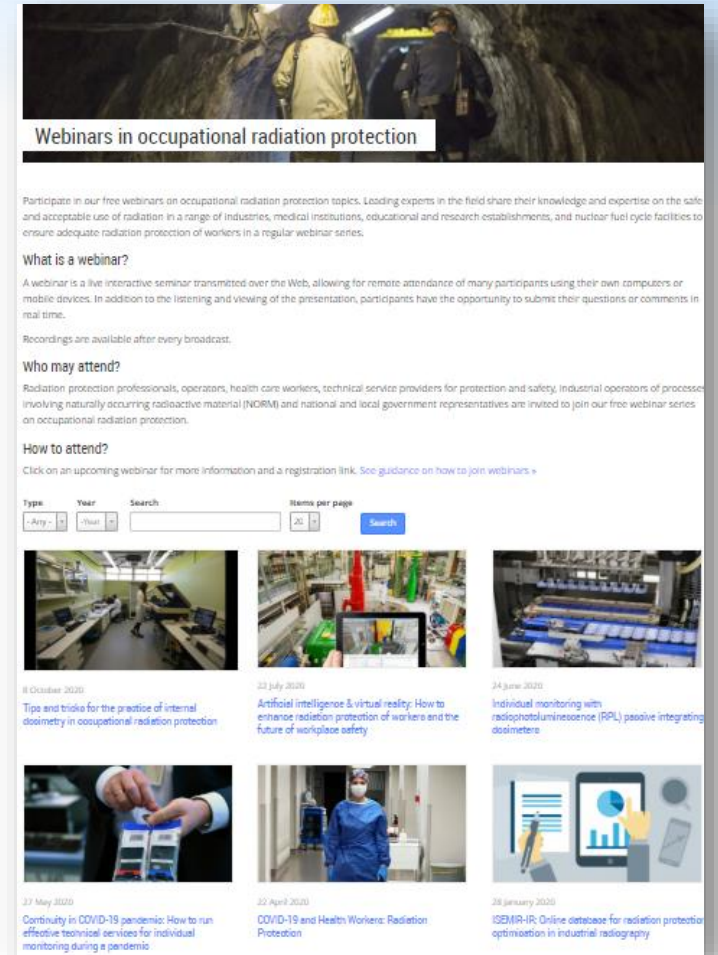
Newsletter

Upcoming events

IAEA Technical Meeting on the Assessment and Evaluation of the Occupational Radiation Protection Appraisal Service (ORPAS)

ORP Webinars

- Family member of RSM/NSRW Radiation Protection Webinars
 - Radiation Protection of the Public
 - Radiation Protection of Patients
 - **Radiation Protection of Workers**
- ORP Webinars
 - RP professionals, regulators, employers, operators, workers, worker representatives, qualified experts, licensees/registrants, technical service providers for protection and safety, industrial operators of processes involving NORM & national and local government representatives



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

COVID-19 and Health Workers: Radiation Protection

22 April 2020 - <https://www.iaea.org/resources/webinar/covid-19-and-health-workers-radiation-protection>

Technical Officer: Burçin Okyar, H.B.Okyar@iaea.org

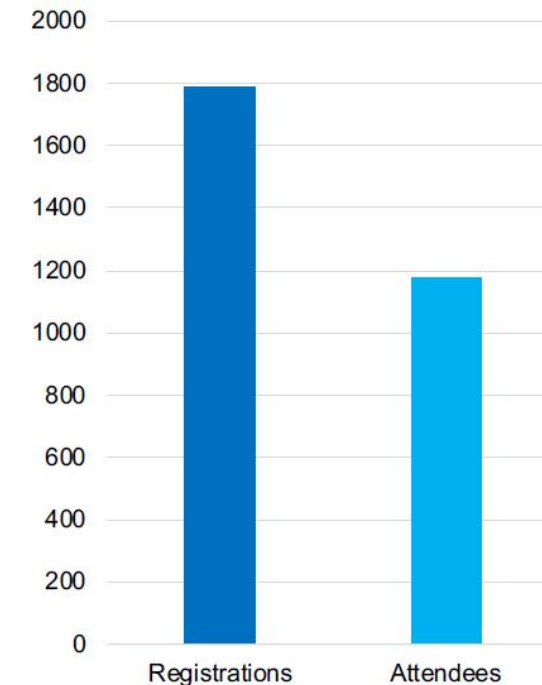


A healthcare worker in PPE. (Photo: Banu Atalar/Acibadem Maslak Hospital)



1790 Registrations
1181 Attendees
66% attendance rate

Registrations and Attendees



Learning Objectives:

- ✓ Strategies to work safely while under stress without jeopardizing radiation protection and safety
- ✓ Arrangements to protect health workers using radiation sources for COVID-19 infections
- ✓ Arrangements for facilities converted into pandemic hospitals
- ✓ Difficulties faced by health workers when using of personal protective equipment (PPE) to avoid COVID-19 infections and reuse of PPEs
- ✓ Projections for possible dose increase for workers due to an extended screening

Continuity in COVID-19 Pandemic: How to Run Effective Technical Services for Individual Monitoring During a Pandemic

27 May 2020 - <https://www.iaea.org/resources/webinar/continuity-in-covid-19-pandemic-how-to-run-effective-technical-services-for-individual-monitoring-during-a-pandemic>

Technical Officer: Burçin Okyar, H.B.Okyar@iaea.org

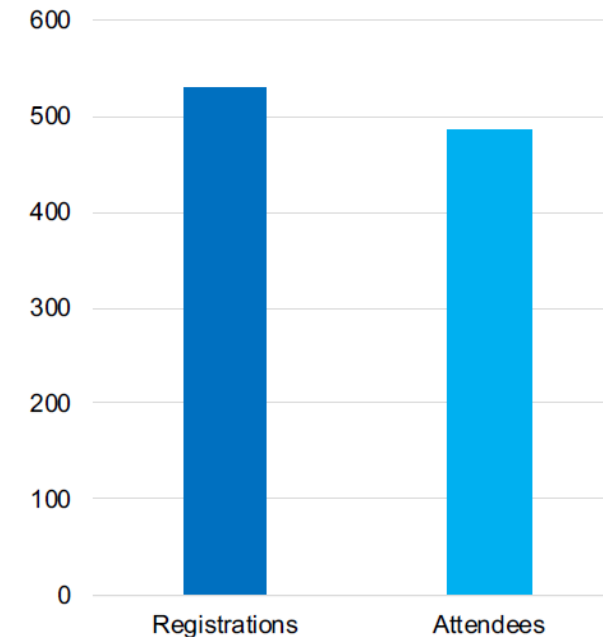


A radiation dosimeter used for individual monitoring in IAEA laboratories. (Photo: D. Calma/IAEA)



530 Registrations
487 Attendees
92% attendance rate

Registrations and Attendees



Learning Objectives:

- ✓ Adoption of the IAEA GSR Part 3 requirements and GSG-7 guidance for technical service providers during the current COVID-19 pandemic
- ✓ The European Radiation Dosimetry Group (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

ORP Webinars - NORM



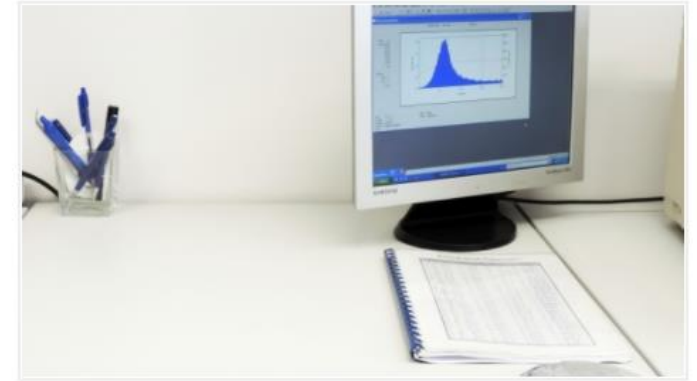
18 June 2019

The role of industry in policy and decision making related to Naturally occurring radioactive material (NORM) – a practical perspective



12 February 2019

Realistic dose assessment in industrial activities involving NORM



27 November 2018

Development of a regulatory framework for Naturally occurring radioactive material – experience of the United States



Occupational Radiation Protection **NET**works

Thank you

H. Burçin Okyar
Occupational Radiation Protection Unit
Radiation Safety & Monitoring Section, NSRW
[*h.b.okyar@iaea.org*](mailto:h.b.okyar@iaea.org)

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