Launch of new ORPNET website & features

By: Patrick Williams
Existing ORPNET

- Hosted at nucleus.iaea.org.
- This is an old SharePoint site and ORPNET needs to be migrated to the existing iaea.org.
- Each page and link must be updated and modernized ensuring that the new ORPNET is more functional and easier to use.
Need for ORPNET Migration

• ORPNET has existed on old nucleus site for over 10 years.
• Many of its functionalities are outdated or broken.
• Re-organize many of the categories of services and information provided by ORPNET.
• Allow for better ease-of-use for ORPNET.
Old vs. New ORPNET

The Occupational Radiation Protection Networks (ORPNET) promote the optimisation of occupational radiation protection. They provide comprehensive information about national, regional, and international networks and systems related to the radiation protection of workers, while also enabling participating networks to collaborate with each other. They also feature information about upcoming events, new publications, joint projects, policies, and other related news.

Worldwide Networks

Enhancing safety standards for workers across a range of industries requires cooperation at the global level to promote a harmonised approach to occupational radiation protection. Read more...
New ORPNET Functions

National Arrangements on Occupational Radiation Protection:

- Pertains to the structures that remain similar across member states.
- This includes legal, administrative, and organizational arrangements necessary for controlling, monitoring, and recording the exposure of workers to radiation.
New ORPNET Functions

Workers and Radiation at Workplaces:

- Pertains to the use of radiation in various types of workplaces.
- What protections and limitations need to be in place for each type of workplace application.
- Gives general information about different types of workers. Including, but not limited to:

1. Medical Institutions
2. Nuclear Installations
3. Research and Training
4. NORM Industries
5. Industrial Applications
6. Air and Space Crews
New ORPNET Functions

Worldwide Networks:

• Enhancing safety standards for workers across a range of industries requires engagement at the global level to promote an internationally harmonized approach to occupational radiation protection.

• This area includes networks that cover worldwide groups of workers in industries involving radiation.

• These networks include:

  1. The Information System on Uranium Mining Exposures
  2. The Information System on Occupational Exposure in Medicine, Industry, and Research (ISEMIR)
  3. The Information System on Occupational Exposure (ISOE)
New ORPNET Functions

Regional Networks:

- Occupational radiation protection has also to engage beyond national borders and share the practices and lessons learned for optimization at the regional level.
- Regional network are encouraged by the IAEA to spread good practices for application of optimization with graded approach through information exchange on operations.
- These regional networks include, but are not limited to, the following:
  1. African ALARA Network (AFAN)
  2. The European Radiation Dosimetry Group (EURADOS)
  3. The Regional East European and Central Asian ALARA Network (RECAN)
  4. Latin America Occupational Radiation Protection Optimization Network (REPROLAM)
New ORPNET Functions

**News:**

- At the bottom of the new home page for ORPNET will be a dynamic news tab.
- Here, the latest news pertaining to ORPNET will be displayed giving information from the secretariat to the member states.
New ORPNET Functions

Register and Access ORPNET:

- Here users may register for ORPNET and have their email added to a list that will give them real-time updates to the changes and updates involving ORPNET.

- Accessing ORPNET will allow users to see the gather information surrounding the topics covered in ORPNET.
New ORPNET Functions

Events, Resources, Contact:

• Here users have links to the latest events surrounding the networks aided by the IAEA secretariat.

• Additionally, there are different resources available to users such as training information, the ORPAS platform, conference materials, and newsletters/posters/leaflets.

• Last, users will be able to contact the managers of ORPNET through our contact email.
Regional Networks

- Regional Network page will give links to all available regional networks held in ORPNET.
- Provides history, objectives, management, activities, and contact information for each network.
- This will allow for an easier time understanding what available networks are being monitored by ORPNET.
Worldwide Networks

- Worldwide networks contain the networks that deal with radiation workers operating in specific industries across the world.
- From here, users can easily find information about these different networks, their application, and contact information.
- This will allow users to more easily understand the networks and information available to them as radiation workers.
As stated earlier, national arrangements on occupational radiation protection is similar or identical in Member States and include legal, administrative, and organisational arrangements necessary for controlling, monitoring, and recording the exposure of workers to radiation.

Here we can see the safety culture page. This page describes the relationship between employee and employer and the need to maintain proper safety in the workplace.

This page includes the responsibilities and duties of the:
- Technical service providers
- Regulatory Bodies
- Operators
- Promotors of safety culture
Workers and Radiation at Workplaces

Example of some of the information provided about specific workplace environments.

Aircrew and Space Crew

Cosmic Radiation Exposure of Air and Space Crew

The ICRP National Dose Registry (NDR) contains the dose records of individuals who are exposed to cosmic radiation.

What to do if you are exposed to cosmic radiation?

Cosmic radiation is high-energy radiation generated in outer space. Everybody receives some radiation as cosmic radiation as it travels through the Earth’s atmosphere. Radiation levels are reduced as you go higher up in the atmosphere. The NASA radiation exposure for astronauts is higher than that of civilians. However, the average cosmic radiation exposure is lower than that of astronauts.

How much radiation do air and space crews receive?

The radiation dose received by astronauts and aviators is higher than that of civilians. Astronauts in the International Space Station (ISS) receive a higher dose of radiation than those on Earth. The average dose received by astronauts is approximately 500 milliSieverts per year.

What do the IAEA Safety Standards say?

In 2014, the IAEA published the General Safety Requirements Part 2: Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards. This is an international standard for the protection of workers, the public, and the environment from the harmful effects of ionizing radiation.

The IAEA Safety Standards state that the dose limit for members of the public is 100 mSv per year. The dose limit for members of the public is 100 mSv per year. The dose limit for members of the public is 100 mSv per year.

References

1. IAEA Safety Standards, Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards.
Summary

• The newly migrated and updated ORPNET should be a site that easier to use and provides clearer and more concise information to the end-users.

• This site will be the backbone of multiple ALARA, monitoring, and communication networks that aim to keep radiation workers and the general public as safe as possible.

• As this site is further developed, we would appreciate any input from the member states and sub-networks on how to create an organisational hub that is most suited to your needs.
Thoughts and Questions

• Any additional resources you would like to see?
• What type of information do you need most readily available?
• Comments, Questions, or Concerns?