

Occupational Radiation Protection in Public Health Institute of RS

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ABSTRACT

Public Health Institute of Republic of Srpska (PHIRS) is specialized health institution with wide scope of activities in the public health area. Radiation Protection Center (RPC) is one of ten operational units of PHIRS. Currently sixteen employees, two of them qualified experts in radiation protection, deliver state of the art services in the field of radiation protection. Occupational radiation protection is one of its activities and is accomplished through the work of two laboratories – Personal Dosimetry Laboratory and QC / Workplace Monitoring Laboratory. Approximately 1/3 of occupationally exposed workers to ionizing radiation in Bosnia and Herzegovina is under surveillance of PHIRS laboratories through different activities that are carried out and they are presented here.

RADIATION PROTECTION CENTER (RPC)

- o Founded in April 2001
- o RPC consists of 4 laboratories
- o Ionizing labs are regulated by State Regulatory Agency for Radiation and Nuclear Safety (SRARNS) while non-ionizing part is under surveillance of Ministry of Health and Social Welfare of RS

- Personal Dosimetry Laboratory
- QC and Workplace Monitoring of Radiation Sources
- Radiochemistry Laboratory

SRARNS

- Non – ionizing Laboratory

Ministry of Health and Social Welfare

- o Depending on the Category of the practice, all practices regarding ionizing radiation are authorized by licensing or registration

THIRD PARTY AUDITS

STANDARD AUDITS

- o ISO 9001 certified
- o BAS EN ISO/IEC 17025 accredited



INDEPENDENT APPRAISAL SERVICE

- o ORPAS mission in 2018
- o appraisal is based on international standards conducted by international experts that are selected based on their experience with such reviews, as well as for their knowledge of international guidance and best practices.

ACTIVITIES RELATED TO OCCUPATIONAL EXPOSURE

- RPC is authorized as a technical service to perform trainings in radiation protection field
- Trainings are conducted according to plan and programme depending on the category of exposed workers which is defined in Bosnian regulations



Training Courses

Personal dosimetry



- Rados RE-2000 semiautomatic TLD reader with commercially available software for handling the glow curves
- Two elements cards for Hp(10) and Hp(0.07)
- Monitoring periods: 1-month and 3-months (depending on the category of the workers)

Workplace Monitoring



- Yearly surveys: ~250
- Mainly industrial and medical facilities

Occupational Radiation Protection in PHIRS RPC

Shielding calculations

When radiation emitting equipment is being installed, moved or replaced RPC is authorized to design a shielding in accordance with international guides and recommendations.

To help PHIRS clients meet the national regulations and optimize doses where reasonably achievable, RPC is producing RPP with standard elements required by the regulator for this purposes.

Radiation Protection Programmes

Safety assessments

Safety assessments, according to Regulation on Radiation Protection for Occupational and Public Exposure. Some of safety assessment elements are:

- an estimate of committed annual dose for exposed workers
- an assessment of probability and possible spread of radioactive contamination

- an estimate of expected levels of contamination of air and surfaces
- the definition of controlled and supervised areas

CONCLUSION

Over the years, RPC has been increasing its capacities in personnel, educations, new equipment installations, networking, accreditation process etc and founded strong system for occupational radiation protection and radiation protection in general in Bosnia and Herzegovina.