International Conference on Occupational Radiation Protection: Strengthening Radiation Protection of Workers –Twenty Years of Progress and the Way Forward

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DOSE ASSESSMENT OF OCCUPATIONALLY EXPOSED WORKERS IN MONTENEGRO: AN OVERVIEW

The aim of this study is to estimate the effective doses to workers occupationally exposed to ionizing radiation in Montenegro. Montenegro is a small, developing country with 660 000 population, the use of radiation sources being limited to common medical applications and a few industrial ones, with estimated 620 occupationally exposed individuals. 98 persons belong to Category A (controlled persons). Centre for Eco-toxicological Research in Podgorica, acting as a technical support organization to regulatory authorities, is the first and only institution in the country performing personal dosimetry service (since2007). To assess doses two methods were applied: (1) the measurement of the ambient equivalent dose, H*(10)using ionization chambers routinely utilized during workplace monitoring; and (2) the measurement of the personal equivalent dose, Hp(10), using thermoluminescent dosemeters routinely utilized during individual monitoring. Annual doses are given for a period of five consecutive years (2014-2020). The highest annual value of the personal equivalent dose, Hp (10), was found with a practitioned in anghiography department, amounting to 8.3 mSv. The results show that estimated doses are well below annual dose limits of 20 mSv for the occupational exposure.

Name of Member State/Organization

medical physicist

Speakers affiliation

Center for ecotoxicological Research Podgorica

Speakers email

milatovis@yahoo.com

Author: Dr MILATOVIC, Aleksandra (Centre for Eco-toxicological Research)

Co-authors: Dr SVRKOTA, Nikola (Centre for Eco-toxicological Research); BERISAJ, Benard (Centre for

Eco-toxicological Research)

Presenter: Dr MILATOVIC, Aleksandra (Centre for Eco-toxicological Research)

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