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Regulatory requirements regarding Occupational Exposure in North Macedonia

- Radiation Safety Directorate –regulatory body in Republic North Macedonia
- To establish system of control for all source of ionizing radiation,
- To maintain the National Register of Professionally Exposed Workers with dose assessment
- Issuing and withdrawing licencee
- Preparing Plan for Public Protection in Case of radiological Emergency,

1. Regulation on the means and measurement of occupational exposure, keeping records and submitting reports (O.G. No.29/2010);
2. Regulation on the health conditions for work with ionizing radiation sources as well as the measures, the content of and the manner for health surveillance of the persons working with ionizing radiation sources (O.G. No.28/2010);
3. Rulebook on qualification and health conditions of person who may work with ionizing radiation sources (O.G. No.160/2011),
4. Regulation on the types of training and content of the training programme of the Regulation on the health
5. Regulation on the criteria and measures on radiation protection for performing practice with X-ray devices, accelerators and other devices that generate ionizing radiation (Official Gazette of the Republic of Macedonia No.130/2010)
6. conditions for work with ionizing radiation sources as well as the measures, the content of and the manner for health surveillance of the persons working with ionizing radiation sources (O.G. No.28/2010);

PROTECTIVE EQUIPMENT

Protective clothing

Personal protective equipment can be worn to provide protection against exposure to X rays, e.g. gown, aprons and thyroid protectors made of a material (such as vinyl) which contains lead.

A lead apron for the body.



A thyroid protector.



The thyroid dose can be reduced by over 90% by the use of a thyroid collar and the whole body dose by more than half by a lead apron.

Protective devices

Protective devices have to be available in fluoroscopy and interventional radiology rooms and include:

- Ceiling suspended protective screens.
- Protective lead curtain mounted on the patient table.

Basic principle of Radiation Protection

- Justification
 - Optimization (ALARA)
 - Limitation Of dose
- Licence shall be issued if
- Suitable and appropriate facilities and equipment for providing radiation protection,
 - Personal protective equipment and monitoring equipment,
 - Appropriate qualified and trained personnel,
 - Health surveillance for occupational exposed personnel,
 - Radiation exposure assesmant (through both individual and workplace monitoring).
 - Radiation Protection Program which contains Emergency Preparedness Plan and the Quality Assurance and Quality Control
 - Appropriate internal organization and management.
 - Maintaing records in conection with the ionizing radiation sources, occupational exposed persons, radiation protection and safety measures.

the individual monitoring is obligatory for workers occupationally exposed to ionizing radiation who belong to category A (probably to exceed 3/10 of the dose limits), category B (not probably to exceed 3/10 of the dose limits).

Measured quantity Personal dose equivalent, Hp(10) and Hp(0.07)