

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

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TURKEY OCCUPATIONAL EXPOSURE LEVELS AND DOSE REGISTRATION SYSTEM

Annual dose limits for employees

- The effective dose limit for radiation workers is 20 mSv on average for five consecutive years and 50 mSv in any given year.
- The annual equivalent dose limit for the hand and foot or skin is 500 mSv, and for the eyepiece it is 150 mSv (1).

Planned irradiation for special cases

- There are irradiations that occur in normal applications and require effective dose exposure over annual dose limits, but in special cases where there are no other methods other than irradiation, these over doses are carried out with the permission of the Nuclear Regulatory Authority.
- For radiation workers who will be exposed to irradiation in special cases, dose limits are 50 mSv in any given year, an average of 20 mSv per year in 10 consecutive years, and a total of 100 mSv (1).

Dose limits for pregnant radiation workers

- The effective dose limits of the pregnant radiation worker are 1 mSv per year, which is the maximum dose that the society can receive.
- Female employees during breastfeeding are not employed in jobs that are at risk of radioactive contamination (1).

International Central Dose Recording System

- Persons working in case of A Class working condition who is likely to receive more than 6 mSv of effective doses per year or equivalent doses of more than three-tenths of the dose limits given for eyepieces, skin, hands and feet) are required to use "a personal dosimeter".
- Dosimetry service is provided by organizations deemed appropriate by the Nuclear Regulatory Authority and the results of dosimetric evaluation are processed into "the International Central Dose Recording System" (1).

Reference levels

The reference levels determined by the Nuclear Regulatory Authority are given below;

- a) Recording Level: The dose limits recorded in monthly periods for radiation workers are above 0.2 mSv.
- b) Review Level: Equivalent dose requiring further examination, if exceed 2mSv/month.
- c) Intervention Level: Equivalent dose requiring intervention if exceeded 50mSv/month (1).

Other Notes for Dose Registration System:

- Doses taken during accidents are separated from doses taken under operating conditions. These doses are processed separately by the dosimetry service to the Central Dose Registration System.
- The dosimetry service provides radiation workers information about their own dose records.
- In the event that the employee leaves the post and starts working elsewhere, employee gives a copy of the dose records to the employee and ensures that the dose records are kept confidential.
- Personal dose records are stored in the Central Dose Registration System not less than 30 years after the end of the work requiring radiation exposure, during the working life in which the employee is exposed to radiation and then until the year the person reaches the age of 75 (2).

References

- 1- Regulation on Radiation Safety (Official Gazette Date: March, 2000 , Official Gazette Issue: 23999)
- 2- Regulation on Radiation Protection in Nuclear Facilities (Official Gazette Date: May 29, 2018 , Official Gazette Issue :30435)

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