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# Assessment of internal exposure for radiation workers in Iraqi nuclear research center

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The assessment of radioactivity within the human body is one of the main procedures for assessing safety in nuclear facilities, resulting in the welfare of workers who engage in handling of unsealed radioactive materials in their daily activities. In this study assess t e internal exposure for the employees of the Iraqi Nuclear Research Center (INRC) to radioactive material in their work. A total of 65 radiation workers worked in the Iraqi Nuclear Research Center, 52 workers deal directly with the radioactive material, their ages ranged from 32-61 years, and 13 Administrative staff in the same centerwho did not deal with radiation, their ages ranged from 32-59 years. Each worker was scanned for 900 seconds utilising a RADEK SEG-10P Whole Body Counter (WBC) Spectrometer chair equipped with two detectors BDEG-80 (or one BDEG-150) and BDEG-25 specialised to detecting the integrated gamma-radiating radionuclide content of the entire human body, the human lungs, and the human thyroid gland. The aim of this work is to assses the internal exposure for each radionuclide of interest was then calculated using the ICRP Publication, the IAEA Safety Report, and the BSRP in the committed effective dosage. The data demonstrate that no internal exposure was found in any of the radiation workers who were monitored. This could imply that radiological work procedures at these institutions are properly

on a frequent basis to guarantee greater protection and safety for radiation workers.

Topics

**Radioactive material**, **Isotopes**, **Radioactive decay**, **Endocrine system**, **Careers and professions**, **Scholarly publishing**, **Scientific society and organization**

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