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## **ASSESSMENT OF OCCUPATIONAL RADIATION EXPOSURES AT SOME SELECTED DIAGNOSTICS CENTRES IN THE SOUTH WEST NIGERIA**

ASSESSMENT OF OCCUPATIONAL RADIATION EXPOSURES AT SOME SELECTED DIAGNOSTICS CENTRES IN THE SOUTH WEST NIGERIA

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The Nigerian Nuclear Regulatory Authority is the competent Authority charged with the responsibility of nuclear safety and radiation protection that ensures adequate monitoring of radiation workers in Nigeria. Personnel monitoring is a major way to ensure compliance with international standards and the national regulatory dose limit for safety of radiation worker in the radiological facility. The occupational exposures of radiation workers in Diagnostics radiology facilities in the Southwest Nigeria was assessed using TLD LiF 100 badges for personnel radiation monitoring while integrated dose was measured at the control console using RDS 31 survey meters in 40 diagnostic radiology centers. This comprises of Federal government, State government and privately owned diagnostic centers. The average annual dose obtained using TLD LiF 100 for Diagnostic Radiology ranges from 0.01 to 2.4mSv with average value of 0.31 mSv and upper third quartile of 0.36 mSv while the annual dose estimated with survey meters ranges from 0.01 to 0.011mSv

It was observed that the values obtained with TLD LiF 100 dosimeter in this work is slightly higher than the estimated values obtained using survey meter. The maximum value obtained with TLD LiF 100 dosimeter is slightly higher than the average personnel dosimetry report published by NNRA for 2012 to 2016. The occupational exposure values obtained are far below the relevant national dose limit and international standards. A practice specific occupational exposure reference value of 1mSv is hereby proposed as dose constraint for radiological facility in the Southwest Nigeria.

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