

Radiological Implications of Electronic Waste Dump-Sites in the Most Populous City in Nigeria

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Abstract

The developing countries of Africa have been the repository sites for electronic waste and the health hazards associated with these waste have been played down over the years. Electronic waste in the developing countries is causing various health and pollution problems. Apart from the hazards from the toxic metals which form the main components of these electronic devices, certain hidden components of these devices may contain radioactive substances that may alter and enhance natural background level of radionuclide at the dump-sites. This study examines the radionuclide concentration in four electronic dump-sites and other undisturbed sites as control in Lagos state, Nigeria using gamma spectroscopy. The radiological health detriment to the inhabitant of the area was estimated and appropriate recommendations needed to mitigate the health effects due to the indiscriminate dumping of electronic waste in Lagos state were proposed.

Keywords: electronic, waste, radionuclide, health detriment