**SUSTAINABILITY OF REGULATORY INFRASTRUCTURE FOR THE MANAGEMENT OF RADIOACTIVE WASTE IN NIGERIA: CHALLENGES AND PROSPECTS**

**Abstract**

For more than two (2) decades, Nigeria has been involved in wide range of peaceful applications of nuclear technology in various fields, such as industry, medicine, agric, research, and other applications leading to more prospects and as well as challenges associated with the sustainability of radioactive waste management to attain environmental and economic benefits. In recognition that operation of nuclear reactor and other nuclear technologies and activities generate spent fuel and radioactive waste, Nigeria is committed to sustaining the legal, institutional and regulatory infrastructure for spent fuel and radioactive waste management in consideration of the national circumstances or the nature of waste generated and anticipated. In Nigeria, radioactive wastes are generated mainly from the use of radioactive sources in industrial, medical, agriculture, education and research and mining of ores associated with high activity concentration of naturally occurring radioactive materials. There are over four hundred and eighty (480) disused sealed radioactive sources in temporary storage facilities, and thousands of sealed radioactive sources in use in facilities and activities, and large volume of elevated level of Naturally Occurring Radioactive Materials that may arise from remediation of contaminated sites resulting from mining activities. This paper tends to describe the components of the legal, institutional and regulatory infrastructure for spent fuel and radioactive waste management in Nigeria, the prospects and challenges in ensuring their sustainability.