



# **Nigeria's National Strategy in Managing DSRS**

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# National Strategy

- Nigeria's Regulatory Body is the Nigerian Nuclear Regulatory Authority (NNRA)
- Established in May, 2001 in accordance with the Nuclear Safety and Radiation Protection Act of 1995, No 19 (Act)
- To carry out its functions, the NNRA has Departments and Divisions. Those that are involved in the radioactive waste management processes are:
  - (a) Waste Management Division of the Department of Radiological Safety
  - (b) Department of Inspection, Authorization and Enforcement
  - (c) Department of Nuclear Safety which also deals with security of all sources



# National Strategy

- The responsibility of the NNRA is to ensure protection of life, health, property and the environment from the harmful effects of ionizing radiation, while allowing the beneficial practices involving exposure to ionizing radiation. Also, safety and security of radioactive sources, safeguard of nuclear materials and physical protection of areas where sources are used constitute the regulatory functions of NNRA amongst others.



# National Strategy

- Very Good regulatory framework with no interference from Government
- Follow all relevant procedure for ensuring Safety and Security as well as trends on Import and Export of Radioactive and Disused Sealed Radioactive Sources
- The NNRA Authority uses the Regulatory Authority Information System (RAIS) and updated regularly
- NNRA requires all users of Radioactive Sources to have **a written agreement with manufacturers to take back the sources when they are disused.**



# National Strategy

- The NNRA gazetted ten (10) Regulations amongst which is the **Nigeria Radioactive Waste Management Regulations (2006)**A
- Also drafted was the National Radioactive Waste Management Policy and Strategy that has been forwarded to Mr. President
- Nigeria has only one Radioactive Waste Management Facility (RWMF) located in the Centre of Energy Research and Training (CERT), Zaria, Kaduna State. It has a Memorandum of Understanding (MOU) with the Authority on Management of the RWMF.
- The Facility has qualified trained staff and is licensed by the Authority.
- The attached storage facility has been licensed for temporary storage of retrieved legacy sources pending their repatriation or their eventual containment and final storage or disposal.
- Legacy sources have been found in a steel mill in the country and through the NNRA Liaising with IAEA on how to condition the sources and export them to the country of origin.



# Radioactive Waste Management Policy and Practices

- The radioactive waste management policies in Nigeria are prescribed in the Act 19 of 1995 and in the National Radioactive Waste Management Policy and Strategy. The framework for the policy stipulates that Nigeria will comply with the basic principles developed by the IAEA for safe management of radioactive materials
- Radioactive waste management in Nigeria shall be done in accordance with the following policy principles to mention a few:
  - The generator shall be responsible for the management of the waste generated.
  - **Users should have a written agreement with manufacturers to take back the sources when they are spent.**
  - The financial burden for waste generated will be borne by the generator.
  - **In principle Nigeria will not import radioactive waste but will share in the responsibility for global and regional radioactive waste management issues**



## RW Management Policy and Practices

- The Radioactive Waste Management Policy and Strategy serves as a national commitment to address the country's radioactive waste issues in a coordinated and co-operative manner.
- It envisages that the management of radioactive waste in Nigeria shall be in accordance with national objectives and recognized international principles as set out in the Policy.
- The management plan shall be in consonance with the provisions of other existing relevant acts and regulations in the country, for example Ministry of Housing and Environment, Ministry of Mines and Steel, Department of Petroleum Resources and National Emergency Management Agency.



# POLICIES AND PRACTICES

- It is the Nigerian Government's policy to deal with radioactive waste in a manner that protects human health and the environment, now and in the future in accordance with the following principles:
- i. Protection of Human Health: Radioactive waste shall be managed in such a way as to secure an acceptable level of protection for human health.
- ii. Protection of the Environment: Radioactive waste shall be managed in such a way as to provide an acceptable level of protection of the environment, including natural resources.
- iii. Protection beyond Nigeria's Borders: Radioactive waste shall be managed in such a way as to ensure that the possible effects on human health and the environment beyond national borders will be taken into account.
- iv. Protection of Future Generations: Radioactive waste shall be managed in such a way that predicted impacts on the health of future generations will not be greater than relevant levels of impact that are acceptable today.





# POLICIES AND PRACTICES

- v. Burden on Future Generations: Radioactive waste shall be managed in such a way that will not impose undue burdens on future generations.
- vi. National Legal Framework: Radioactive waste shall be managed within an appropriate National legal framework, including clear allocation of responsibilities and the provisions for independent regulatory functions.
- v. Control of Radioactive Waste Generation: The generation of radioactive waste shall be kept to the minimum practicable.
- vi. Radioactive Waste Generation and Management Interdependencies: Interdependencies among all steps in radioactive waste generation and management shall be appropriately taken into account.
- vii. Safety of Facilities: The safety and security of facilities for radioactive waste management shall be appropriately assured during each phase of the facility's lifecycle.



# SAFETY OF RADIOACTIVE WASTE MANAGEMENT

- The Nigerian Basic Ionizing Radiation Regulations (NiBIRR) address the issue of waste management as well as ensure that the wastes generated are kept to the minimum practicable (ALARA) and that there is effective protection of individuals, society and environment.
- This is done through applying suitable protective methods that are in consonance with the NiBIRR regulations and with international standards.
- Presently, Nigeria has embarked on upgrading the RWMF to meet all practicable international standards. This was done with assistance from the IAEA and GTIR.



In 2008, NNRA finalized plans with IAEA for the installation of the first Radiation Portal Monitor (RPM) at the Murtala Mohammed International Airport. The RPM was commissioned in April 2009. Soon, three (3) more RPMs are to be installed at different entry and exit locations in the country.

For the purpose of improving the safety of radioactive wastes generated, Nigeria plans to:

- i. Establish and operate a suitable inventory of radioactive wastes of all types
- ii. Conduct audit of radioactive materials in RWMFs periodically
- iii. Continue to conduct periodic inspection of existing facilities and ensure that all prospective RWMF are properly licensed
- iv. Construct and operate more RWMF in the country so as to take care of the vastness of the country and need to transport radioactive wastes through long distances
- v. Establish a National Repository for conditioning wastes
- vi. Train more staff on radioactive waste management



**Thank you**