



**NIGERIAN NUCLEAR
REGULATORY AUTHORITY**

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Legislative and Regulatory Framework for the Physical Protection of Nuclear Material and Nuclear Facilities in Nigeria

By

Dr. Nasiru-Deen A. Bello

Director - Nuclear Safety, Physical Security & Safeguards

Nigerian Nuclear Regulatory Authority



Evolution of Legislation and Regulations



- An effective nuclear security regime of any Country relies on the Country's legislative and regulatory framework.
- Nigeria enacted the Nuclear Safety and Radiation Protection (NS&RP) Act in 1995, which established the Nigerian Nuclear Regulatory Authority (NNRA)
- NNRA is saddled with the responsibility for nuclear safety, security and radiological protection regulation in Nigeria.



Evolution of Legislation and Regulations

According to the NS&RP Act, the NNRA shall amongst others:

- ✓ regulate the possession and application of radioactive substances and devices emitting ionizing radiation;
- ✓ ensure protection of life, health, property and the environment from the harmful effects of ionizing radiation;
- ✓ regulate the safe promotion of nuclear research and development, and the application of nuclear energy for peaceful purposes;
- ✓ advise the Federal Government of Nigeria on nuclear security, safety and radiation protection matters.



Evolution of Legislation and Regulations



- Based on the Act, the NNRA shall have power amongst others to:
 - ✓ Categorize and license activities involving exposure to ionizing radiation;
 - ✓ make regulations prescribing anything required to be prescribed under the NS&RP Act with the approval of the President;
 - ✓ issue codes of practice which shall be binding on all users of radioactive and prescribed substances, and of sources of ionizing radiation;
 - ✓ do everything necessary to ensure that all concerned persons and bodies comply with laid down regulations under the NS&RP Act.



Evolution of Legislation and Regulations



Legally Binding International Instruments

- Nigeria signed and ratified the following Legally Binding International Instruments necessary for the implementation of an effective Nuclear Security regime in the country:
 - Convention on Physical Protection of Nuclear Material (CPPNM);
 - Amendment to the Convention on Physical Protection of Nuclear Material; and
 - International Convention for the Suppression of Acts of Nuclear Terrorism.
- Nigeria also signed the Comprehensive Safeguards Agreement (CSA) and further ratified the Protocol Additional to the CSA.
- Nigeria endorsed the UN Security Council Resolutions 1540.
- Nigeria also signed and ratified the Treaty of Pelindaba on the African Nuclear-Weapon-Free zone.



Evolution of Legislation and Regulations



Legally Non-binding International Instruments

- Nigeria adopted the IAEA Code of Conduct on the Safety and Security of Radioactive Sources to developed the Nigerian Safety and Security of Radioactive Sources Regulations, in 2006.
- Nigeria further made political commitment to the Code of Conduct on the Safety and Security of Radioactive Sources in 2012.
- Based on the IAEA Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5), Nigeria has drafted the Nigerian Regulations on the Physical Protection of Nuclear Material and Nuclear Facilities in 2015.



Evolution of Legislation and Regulations



- Nigeria received various International Atomic Energy Agency (IAEA) Missions among which are the International Nuclear Security Advisory Service (INSServ) in May 2004 and the Radiation Safety and Security Infrastructure Assessment (RaSSIA) in November 2005.
- It was observed by INSServ, RaSSIA and Other Missions that the existing NS&RP Act of 1995 did not adequately cover nuclear security.
- The NNRA has reviewed the NS&RP Act 19, of 1995 to fully cover all aspects of nuclear and radiation safety, security and safeguards.



Evolution of Legislation and Regulations



- ✓ The **Nuclear Safety, Security and Safeguards Bill (NSSS Bill)** has been produced.
- ✓ - reviewed by the relevant Stakeholders in Nigeria and the International Atomic Energy Agency (IAEA) Office of Legal Affairs (OLA) in June 2017.
- ✓ - will be submitted to the National Assembly soon for passage to law.



Evolution of Legislation and Regulations



The NNRA has developed a number of regulations based on the provisions of the relevant International Instruments necessary to support the implementation of an effective nuclear security regime in the Nigeria. Amongst others are:

- ✓ Draft Nigerian Regulations on the Physical Protection of Nuclear Material and Nuclear Facilities:
 - Ready for gazetting by Federal Ministry of Justice (FMJ).
- ✓ Draft Nigerian Regulations on the System of Accounting for and Control of Nuclear Material (Safeguards Regulations).
 - Ready for gazetting by Federal Ministry of Justice (FMJ)
- ✓ Revised the Nigerian Regulations on safety and security of radioactive sources, transport regulations; and Radioactive waste management regulations



Independence of the Nigerian Nuclear Regulatory Authority



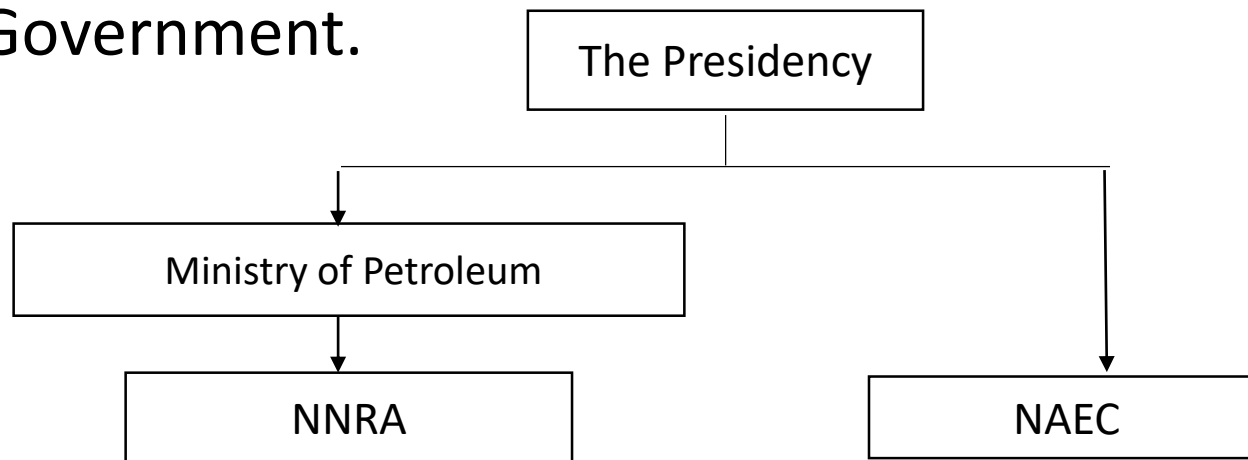
- Section 2 of NS&RP Act, The Chairman of the NNRA Governing Board shall be the President of the Federal Republic of Nigeria.
- Section 12 (1) of NS&RP Act, The Board shall establish and maintain a fund from which shall be defrayed all the expenditure incurred by the Authority as specified in this Act.
- Section 12 (2) of NS&RP Act, There shall be paid and credited to the fund established pursuant to subsection (1) of this section -
 - (a) such sums as may be provided by the Federal Government;
 - (b) all sums charged for services rendered by the Authority;
 - (c) all other sums that may accrue to the Authority from any other source.



Independence of the Nigerian Nuclear Regulatory Authority



- Nigeria enacted separate Acts of parliament - the Nigeria Atomic Energy Commission (NAEC) Act 46 of 1976 and the NS & RP Act 19 of 1995 that enables NNRA to operate and take its decisions without interference from entity engaged in development or promotion of nuclear energy.
- NNRA and NAEC have different bureaucratic channel of communication to the Government.





Interagency Communication and Coordination



- Nigeria established National Nuclear Security Committee (NNSC) in 2003 for an effective communications and coordination of national nuclear security activities;
- Some of the mandates of the Committee include:
 - ✓ To strengthen National nuclear security systems in Nigeria.
 - ✓ To conduct threat assessment for nuclear and other radiological facilities in Nigeria.
 - ✓ To establish and strengthen Nuclear Security Detection Architecture (NSDA) for Nigeria.
 - ✓ To coordinate human resource development in the area of nuclear security.
 - ✓ To compliment NNRA activities in the areas of import and export as well as enforcement issues.



Interagency Communication and Coordination



The members of the NNSC are organizations with direct responsibility for the nuclear security in Nigeria (**Draft NSSS Bill 2016**) which are:

- The Attorney General of the Federation and Minister of Justice as the Chairman;
- The National Security Adviser as the Vice Chairman;
- The Chief of Defence Staff;
- The Director General of National Intelligence Agency;
- The Director General of State Security Service;
- The Inspector General of the Nigeria Police Force;
- The Comptroller General of the Nigeria Customs Service;
- The Comptroller General of the Nigerian Immigration Service
- A representative from Ministries of Foreign Affairs, Petroleum and Health amongst others



Update of Legislation and Regulations to meet INFCIRC225 Rev. 5 Provisions



The Draft Nigerian Regulations on the Physical Protection of Nuclear Material and Nuclear Facilities domesticate all the provisions of the Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5). Some of the highlights of the draft Regulations are:

- Part II - Principal Requirements For Physical Protection.
- Part III - Requirements for Protection Against Unauthorized Removal of Nuclear Material in Use and Storage.
- Part IV - Requirements for Protection Against Sabotage: Process for Design of Physical Protection Systems Against Sabotage.
- Part V - Requirements for Protection of Nuclear Material During Transport.



Regulatory Approach



- The NNRA uses a combine regulatory approach that comprises mixed prescriptive and performance based regulatory approach based on guidelines and recommendations provided through IAEA publications; but tilted more of a prescriptive based regulatory approach.
- The NNRA uses some of the IAEA publications to draft and developed a number of regulations and guidelines including:
 - IAEA Nuclear Security Series No. 13 (Recommendations) - Draft Nigerian Regulations on the Physical Protection of Nuclear Material and Nuclear Facilities.
 - IAEA Nuclear Security Series No. 15 (Recommendations) - Draft National Nuclear Security Detection Strategy.



Regulatory Approach



- IAEA Nuclear Security Series No. 21 (Implementing Guide) – Draft National Nuclear Security Detection Strategy.
- IAEA Nuclear Security Series No. 10 (Implementing Guide) - Guidelines on the Development, Implementation and Maintenance of Design Basis Threat (DBT) for Nuclear and Radiological Facilities in Nigeria
- Draft IAEA Nuclear Security Series No. 11 (Implementing Guide) – Draft Reviewed Nigerian Safety and Security of Radioactive Sources Regulations.



Regulatory Approach

The NNRA regulatory control program are guided by five (5) pillars:

- Regulations and Guidance
- Authorization
- Oversight Functions
- Emergency Planning and Response /Contingency Plan
- Ancillary Functions



Future Activities



- Strengthening import and export control;
- Physical protection in the transportation of the Nigerian Research Reactor Highly Enriched Uranium (HEU) and Low Enriched Uranium (LEU) fuel;
- Concluding and implementation of a nuclear security detection architecture for Nigeria; and
- Improving nuclear security training through the Nigeria Nuclear Security Centre



Thank you for your attention