



Regulatory Infrastructure for Nuclear Power Programme in Nigeria – Impact of RCF

Nigerian Nuclear Regulatory Authority



Content



Introduction



Nigerian Nuclear Regulatory Authority



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Introduction

- Nigeria is embarking on a nuclear power programme and has indicated its readiness for the peaceful application of nuclear energy for power generation.
- In her quest to actualize the nuclear power programme, Nigeria has assented to a number of international legal instruments covering nuclear safety, security, safeguards and emergency response and preparedness.

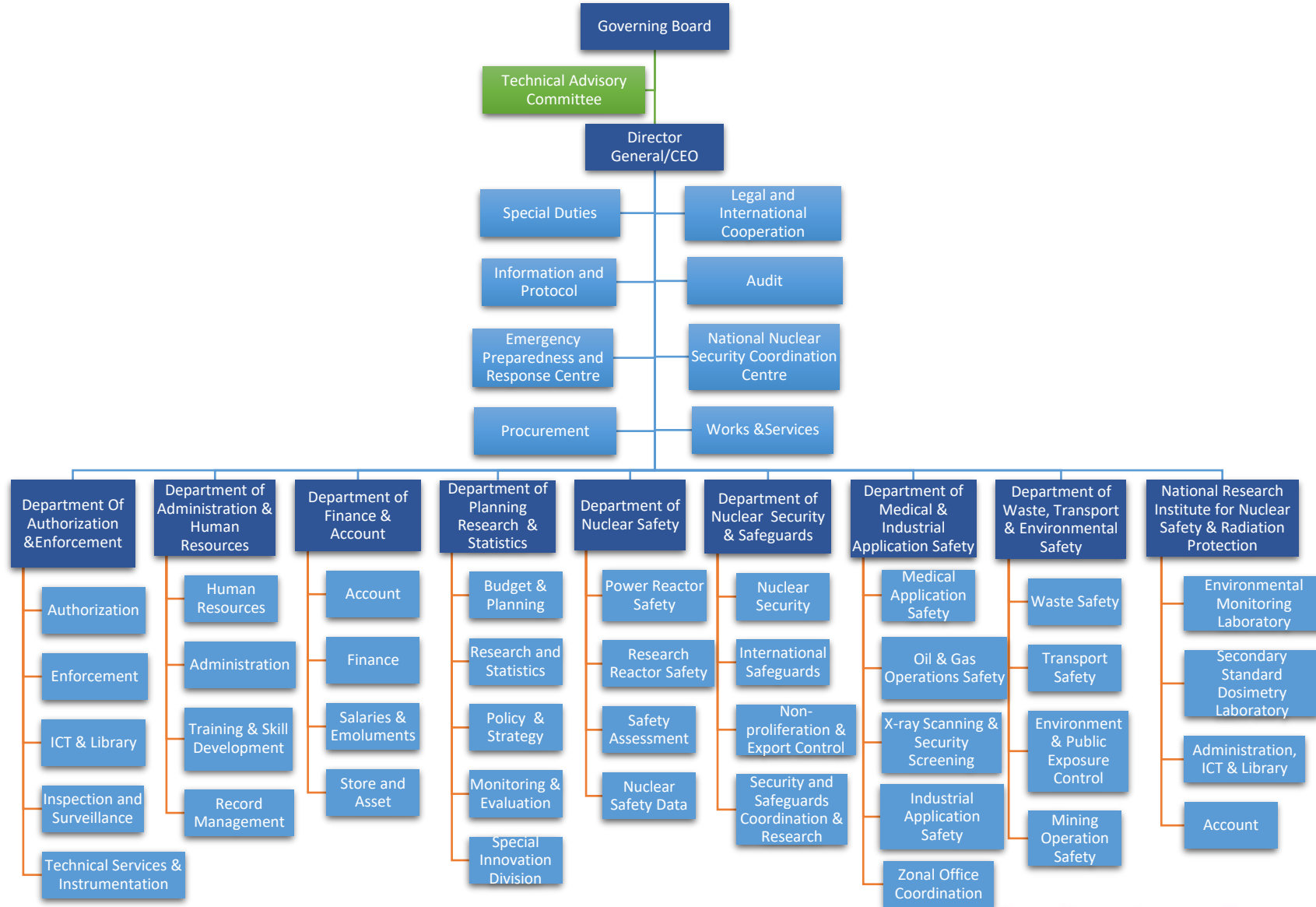


STRATEGIC PLAN

- The NNRA has developed a Strategic Plan for guide activities of the organization from 2021 to 2026.
- The document is awaiting Management approval.
- The plan proposes a new organizational structure in line with the provisions of the NSSS Bill



PROPOSED ORGANISATIONAL STRUCTURE





Regulations and Guides for Nuclear Facilities and Activities



The NNRA is adopting the mixed approach of the prescriptive and the performance based regulatory approaches



Regulations and guidance documents for NPP are developed based on IAEA Standards



Regulations from Advanced countries may also be adopted



Regulations and Guides 1/4

- Newly Gazette Regulations for Nuclear Facilities and Activities:
 - Nigerian Safety Regulations for Licensing of Site for Nuclear Power Plants, 2021
 - Nigerian Nuclear Safeguards Regulations, 2021
 - Nigerian Physical Protection of Nuclear Materials and Facilities Regulations, 2021
 - Nigerian Safety of Research Reactors Regulations, 2021
 - Nigerian Uranium Exploration Mining and Processing Regulations, 2021



Regulations and Guides 2/4

- Draft Regulations submitted to the IAEA in 2018 for Technical Safety Review (TSR) under specified ToR:
 - ✓ Design and Construction of Nuclear Power Plants
 - ✓ Commissioning of Nuclear Power Plants;
 - ✓ Operations of Nuclear Power Plants;
 - ✓ Decommissioning of Nuclear Power Plants;
- TSR completed in March 2020
- Currently undergoing further processing inc Stakeholders' review



Regulations and Guides 3/4

- Regulations submitted to the IAEA in 2021 for Technical Safety Review (TSR):
 - Integrated Management System for Nuclear Facilities and Activities;
 - Training and Qualification of Nuclear Power Reactor Operators;
- Regulations under initial internal drafting:
 - Nuclear and Radiological Emergency Plan;
 - Civil Liabilities and Financial Protection for Nuclear Damage;
 - Nigerian Security of Radioactive Material in Use and Storage Regulations;
 - Transport Security of Radioactive Material Regulations
- Next step: Internal finalization and Stakeholders review in 2021/2022



Regulations and Guides 4/4

- Draft Guidance on Licensing Process for Nuclear Power Plants in Nigeria
 - Based on IAEA SSG-12;
 - It provides detail information on each licensing stage as well as the documents to be provided for a NPP License
- Draft Nigerian Guidance on Siting and Site Evaluation of Nuclear Power Plants
- Draft Guidance Document on Nuclear Material Accounting and Control
- Draft Guidance Document on Nuclear Safeguards



Human Resources

- Systematic Assessment of Regulatory Competence Needs
- Human Resource Development



Systematic Assessment of Regulatory Competence Needs

- The NNRA conducted a systematic assessment of its competence needs using the IAEA assessment tool - SARCoN, in 2013 and 2019.
- Strategies to address identified gaps have been developed and is being implemented. These strategies include:
 - Establishing training and development programmes
 - Participation in knowledge networks
 - Reorganization and replacement
 - Recruitment



International Cooperation and Capacity Building

- The NNRA entered into a Memorandum of Understanding with the Nuclear Regulatory Bodies of some advanced Countries
- NNRA is seeking opportunities for bilateral cooperation with Regulator bodies of some other countries.
- The Authority is building capacity from the MOU by sending Officers on Scientific Visits and Fellowship programs
- The scientific visits cover the following area;
 - Authorization, Review and Assessment, Inspections etc for NPP Licensing;
 - Leadership and Management for safety; etc.



Challenges

- Implementing the HRD program including the need to develop capacity to inspect NPPs at different stages;
- Upgrading the National Institute for Radiation Protection and Research (TSO) to carry out education, training and research needed for NPP regulation
- Finalization of the different Draft Regulations;



Conclusion

- Nigeria through the NNRA is developing a nuclear regulatory infrastructure to enable Nigeria meet her international obligations and actualize the introduction of nuclear energy into her energy mix;
- Nigeria is seeking further assistance in human capacity development to regulate NPPs through the RCF.