



African Commission on Nuclear Energy

Unit B2003, 169 Corobay Corner, Corobay Avenue, Waterkloof Glen, 0010
Pretoria, South Africa. Email Afcone.admin@afcone.org

CONCEPT NOTE

Workshop on Promoting Effective Interaction Among Nuclear Industry and Regulatory Body in Countries Introducing Nuclear Power Programmes

**AFCONe Virtual Event Organized by AFCONe with Support from the
International Atomic Energy Agency IAEA**

**Dates: 30–31 May 2022
14h 00 to 17h 00 Pretoria Time (GMT +2)**

CONTEXT:

Agenda 2063 is the continent's development agenda which seeks to transform Africa's infrastructure, economy, and social well-being. Development of energy infrastructure is vital in delivering Agenda 2063 goals.

Supply of adequate, reliable, and affordable energy has direct implication in transforming Africa into a prosperous, peaceful, and integrated continent with dignified and happy people. Energy generation has social, environmental, and climatic consequences and the impact of climate change and environmental degradation is predicted to have more adverse effect on Africa and its enterprises. Therefore, the development of the energy sector must focus on clean energy.

Meanwhile, the United Nations has recognized that nuclear power can provide the energy to ultimately achieve most of the Sustainable Development Goals (SDGs).

Nuclear energy promises to power Africa in realizing its developmental aspirations contained in Agenda 2063: it is clean, environmentally friendly, climate resilient and can provide adequate baseload for a combined electrical grid system of neighbouring countries. In Africa, nuclear power is currently part of the energy generation mix in South Africa only.

More than 10 African countries are currently considering adding nuclear power into their generation mix and are at various stages of nuclear power infrastructure development. The International Atomic Energy Agency (IAEA) is providing support

through technical cooperation (TC) programmes. From 2013 to 2022, eight African countries have hosted the IAEA' INIR missions and their follow ups.



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Developing a nuclear power programme is a major undertaking that involves many complex and interrelated activities. Each nuclear power plant (NPP) project involves a commitment in the order of 100 years, through construction, operation, decommissioning and waste disposal. Experience suggests that the time from the initial consideration of the nuclear power option by a country to the operation of its first nuclear power plant is about 10–15 years for large NPPs.

Activities undertaken during this period include developing institutions, the legal and regulatory frameworks, safety and security culture, human resources, and financial and industrial support necessary to ensure that the programme is developed in a safe, secure and peaceful manner.

The increased interest in nuclear power in a significant number of countries has prompted the IAEA to develop a publication entitled *Milestones in the Development of a National Infrastructure for Nuclear Power*, IAEA Nuclear Energy Series No. NG-G.3.1 (Rev. 1), which identifies 19 separated but interrelated issues to be addressed by a State that is considering the introduction of nuclear power as part of its national energy strategy.

This publication provides the necessary guidance to Member States to properly plan their development, with due attention to the necessity of: i) building competent institutions; ii) enhancing human resources and infrastructure across a number of areas; iii) establishing an independent and effective regulatory framework; and iv) adhering to relevant international legal instruments.

In conclusion, an effective regulatory framework is essential to the success of a national nuclear power programme. It establishes necessary requirements, authorizes activities, and verifies compliance with safety, security, and safeguards requirements. The regulatory framework needs to be developed and implemented in a phased approach to support the nuclear power programme. In this regard, the sharing of practical experiences of Member States that have advanced through the process of embarking on a nuclear power programme is expected to benefit those Member States that are considering, or are in the planning phases of, such a programme.

This workshop plans to present the experiences of selected Member States in developing their regulatory framework for a new or expanding nuclear power programme, including the roles and responsibilities of the regulatory body and its organization and staffing; planning and issuing of regulations and guides; establishment of a system of licensing; and implementation of a siting, construction and commissioning oversight programme to respond to the needs of the nuclear power programme.

The purpose of this AFCONE event is to support African Member States embarking on a nuclear power programme, through providing an opportunity for the exchange of information among countries as well as for learning relevant lessons from case studies and current practices. The organization of the 2022 UN Climate Change Conference (COP27) in Egypt, will be an opportunity to promote nuclear power energy and the related nuclear safety standards and requirements.



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OBJECTIVES:

- Sensitize about the Importance of an Effective Interaction between the regulatory body and other relevant stakeholders.
- Share the experience of regulatory bodies from more advanced countries

KEY WORDS:

Development of Nuclear Power Programmes in Africa, IAEA milestones, Nuclear Energy Programme Implementation Organisations (NEPIOs), Owner & Operator Organizations, Regulatory bodies, Nuclear Industry, Interested parties.

DATE & TIME:

30 – 31 May 2022: 14:00 – 17:00 (Pretoria Time/ GMT+2)

EXPECTED OUTCOMES:

The expected outcomes of the workshop are:

- Better understanding of the interactions between the regulatory body and the owner/operator.
- Better understanding of the role of the regulatory body to inform the public
- Increase awareness of IAEA support to regulatory bodies.

PARTICIPATING ORGANIZATIONS:

African Missions to the African Union, Government Representatives, African Institutions and Organizations, African Union Development Partners, AFCONE Partners, African National Nuclear Institutions, African Nuclear Regulators, Professional and Research Communities, Academia, Women in Nuclear- Africa, African Young Generation in Nuclear (AYGN).

LANGUAGE:

The Workshop will be held in English.

REGISTRATION:

To Register, Please Send Your Request to the **Email Address:** Afcone.admin@afcone.org with the following information: Full Name, Profession, Institution & Country, Email & Professional Address.



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AGENDA

Moderators: AFCONE & IAEA Experts		
Item	Opening Session Introductory Remarks 14h 00 – 14h 30	Time
1	Mr Messaoud Baaliouamer, AFCONE Executive Secretary.	06 min
2	Ms. Des Clozeaux Aline, Director, Nuclear Energy Division, IAEA	06 min
3	Dr Abou Zeid. Amani, African Union Commission: Commissioner for Infrastructure & Energy	06 min
4	Dr Alexey Ferapontov, Deputy Chairman of the ROSTECHNADZOR: Federal Environmental, Industrial and Nuclear Supervision Service, Russia.	06 min
5	Dr Yau Idris, FNRBA Acting Chairperson	06 min
DAY 01: 30 May 2022 14h 30 – 17h 00		
6	The roles, responsibilities, and key activities of the regulatory body in the three Phases of a nuclear power programme (Masahiro AOKI, RAS NSNI/IAEA)	20 min
7	The importance to ensure effective interactions between the relevant regulatory body and the Interested Parties (Masahiro AOKI-RAS NSNI/IAEA)	30 min
8	Experiences of Member States in Building a Regulatory Framework for the Oversight of New Nuclear Power Plants (M. Ceyhan, NIDS-NENP/IAEA)	20 min
9	IAEA Regulatory Cooperation Forum (RCF) Strategy & Current Activities, Chairperson (Dr Bismark/ RSA)	20 min
10	Q & A	30 min
DAY 02: 31 May 2022 14h 00 – 17h 00 CASE STUDIES: Regulatory Bodies Experience		
11	Engr. Md. Muzammel HAQUE, Chairman, Bangladesh Atomic Energy Regulatory Authority BAERA-Bangladesh	20 min
12	Ms. Olga Lugovskaya head of the Department for Nuclear and Radiation Safety of the Ministry for Emergency Situations of the Republic of Belarus (Gosatomnadzor)- Belarus	20 min
13	Mr İbrahim Halil DERE, Vice President of the Turkish Nuclear Regulatory Authority (TNRA-NDK). Turkey.	20 min
14	Q & A	15 min
15	Dr Yau Idris, Director General / CEO, Nigeria Nuclear Regulatory Authority (NNRA)	20 min
16	Dr Mohamed Gaheen. Head of Safety of Nuclear Installations. ENRRA – Egypt	20 min
17	Dr Bismark TYOBEKA, Chief Executive Officer. South African's National Nuclear Regulator (NNR)	20 min
18	Q & A	15 min
19	CLOSING SESSION: AUC – IAEA – FNRBA - AFCONE	15 min