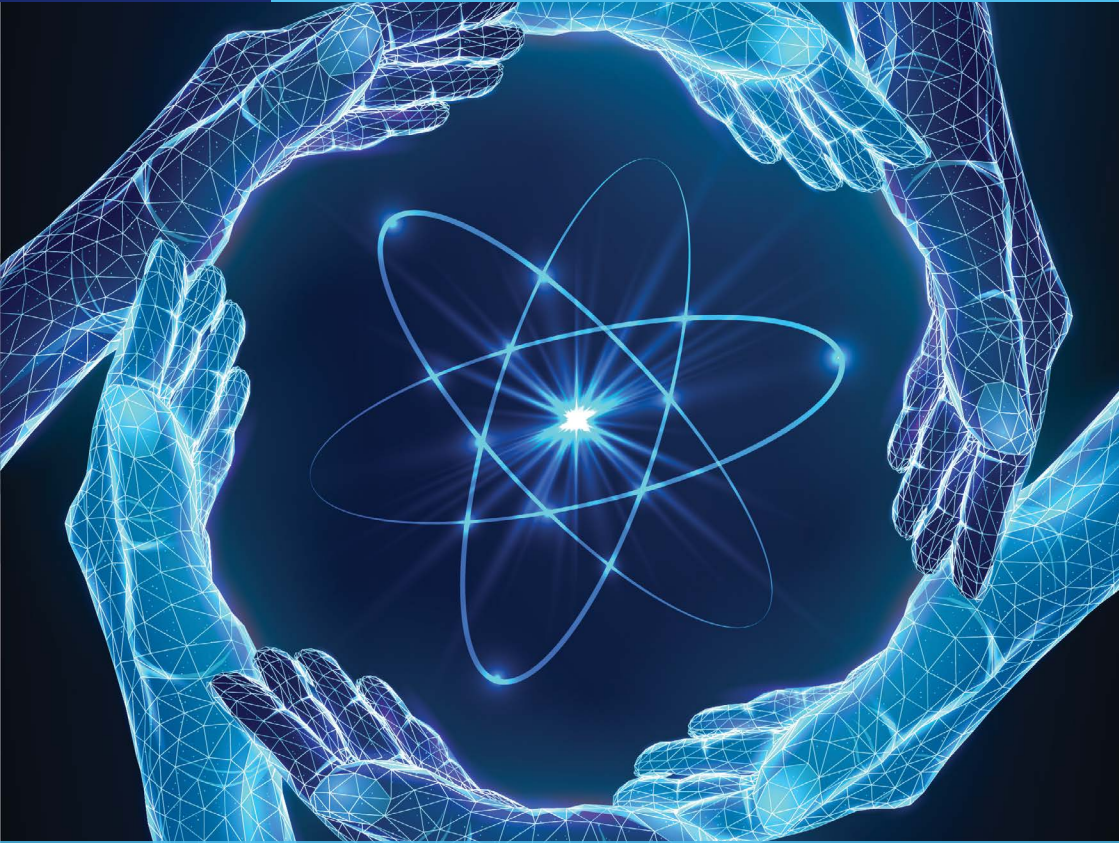


INTERNATIONAL  
CONFERENCE ON

# Effective Nuclear and Radiation Regulatory Systems



*Preparing for the Future in a Rapidly Changing Environment*

Abu Dhabi, United Arab Emirates, 13-16 February 2023

# Call for Action



**IAEA**

International Atomic Energy Agency

This international conference was the sixth in a series of IAEA conferences on effective nuclear and radiation regulatory systems. It reviewed issues of importance to the global regulatory community and highlighted the role of the regulator in ensuring a high standard of safety and security. A focus was how to prepare for the future in a rapidly changing environment.

The conference's objective was to share experiences of improving the effectiveness of nuclear and radiation regulatory systems. The Conference President was Mr Christopher Hanson, Chairman of the Nuclear Regulatory Commission of the United States of America, and the Conference Vice-President, Mr Christer Viktorsson, Director General of the Federal Authority for Nuclear Regulation, United Arab Emirates.

Topics discussed at this conference included:

- Leadership through new and emerging challenges;
- Harmonization, innovation and new technologies: approaches to enhance regulatory agility;
- Full lifecycle challenges and strategies;
- Trusted regulator: cooperative techniques to promote credibility and resilience;
- Capacity building for the future – holistic approaches for nuclear and radiation safety and security;
- Regulating a modern era of medical and radioactive materials, facilities and applications – the journey continues;
- Climate change challenges to nuclear installations;
- Novel ideas presented by young professionals.

Based on the conference outcomes, the President and Vice President developed a Call for Action covering four elements. This brochure details what these key actions mean for stakeholders globally, highlighting the importance of their implementation at the national level to ensure that nuclear and regulatory systems worldwide are prepared for the future.

## **Leadership: invest in people skills and capabilities, develop the next generation, be brave and intentional**

- Define the traits needed for regulatory leaders and take concrete actions to train and empower them so that they can drive our regulatory missions forward in changing environments.
- Integrate young professionals into regulatory bodies, provide structured learning and support programmes for career advancement, and ensure that diverse viewpoints and backgrounds are incorporated in decision-making.
- Make regulatory decisions in an effective and efficient manner. Uphold a strong safety and security focus while striving to not impede progress.



# 2

## **Organizational readiness and agility: use proactive planning frameworks and adaptive management techniques to assess the environment, plan for the future and address the unexpected**

- Adopt comprehensive strategic planning and workload forecasting methods for the planning and prioritization of regulatory activities and initiatives; revisit assumptions on a routine periodicity (e.g., yearly) to assess the need for changes. Seek early engagement with designers and industry to understand planned technology adoption and deployment as means to inform regulatory priorities.
- To be prepared to address new challenges, evolving threats and unprecedented stressors on safe operation of facilities, establish a risk-informed strategy that fosters continued safety and security — leverage international partners as needed for support and benchmarking, and share feedback from experiences to elevate global safety and security.
- Start with the end in mind. Incorporate security by design for small modular reactors and advanced reactor designs. Consider facility lifecycle at the design and authorization stages and have clear responsibilities and frameworks for ageing management and waste disposal. Develop and enhance international and domestic regulatory frameworks for source management and disposal, to include safety standards, security practices and liability guidelines.

## **Trust: demonstrate competence, openness and impartiality**

- Prioritize actions that engender trust between the regulator, the regulated community and members of the public.
- Meaningful communication and engagement with the public on policy and oversight activities should be tailored to specific communities through appropriate media and direct engagement.
- Demonstrate reliability and credibility by re-evaluating safety and security legislation, regulations and regulatory approaches to ensure they remain effective and valid to ensure that guidance is easily understood. If gaps exist, create a plan to close them, leveraging expertise and model frameworks from regulators, technical support organizations or other relevant resources.





# 4

## **Collaboration and capacity building: accelerate progress by engaging in joint reviews (harmonization), region-focused capacity building and sharing of best practices**

- Transition to a global mindset. Invest in harmonization of regulatory approaches and incentivize standardization of small reactor designs as a means to maintain a high level of safety and security, leverage collective technical expertise and achieve timely and consistent authorization decisions.
- Leverage regional cooperation for training, technical assistance and knowledge transfer among Member States to build regulatory competence and stakeholder confidence in the licensing and oversight of peaceful uses of nuclear and radioactive materials.



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