

Towards An Effective and Sustainable National Regulatory Oversight for Nuclear Security

Effective regulatory oversight is vital in maintaining and enhancing nuclear security at the national and global levels. Hence, a comprehensive regulatory infrastructure, comprising an efficient and independent regulatory body (RB), should be established and sustained. In addition, the RB should be provided with appropriate authority and resources concurrently with adequately qualified and competent staff to enable it to fulfill its responsibilities and functions related to nuclear security. In response to realizing the importance of developing an effective and independent nuclear regulatory system, the regulatory oversight in Egypt was anchored in the national legislation and its objectives and measures were specified as well. Over the last years, Egypt has successfully implemented measures and programs to enhance its legislative and regulatory framework related to nuclear security. In this context, a regulatory authority, known as the Egyptian Nuclear and Radiological Regulatory Authority (ENRRA) was established. ENRRA is responsible for conducting the regulatory process and activities in relation to the safety and security of nuclear and other radioactive materials, associated facilities, and associated activities. This encompasses developing regulatory requirements and guidance, issuing authorization prior to any activities entailing nuclear and other radioactive materials, and controlling the compliance of regulatory requirements and license condition through conducting inspections and taking enforcement actions in response to noncompliance. ENRRA's general regulatory policy aims at protecting people, environment, and society from the harmful effects of radiation, and it comprises aspects that are crucial for establishing and sustaining a robust regulatory architecture.

The paper provides an overview of the process of establishing and maintaining a national regulatory system for nuclear security and discusses the current regulatory functions, processes, and practices in this area. It also points out the features of the national nuclear regulatory authority and the ongoing efforts to maintain its independence, competence, continuous coordination with stakeholders, and the adequate use of advisory and support services. It also displays several activities taken by ENRRA to strengthen the supervision and control over nuclear and other radioactive materials. The main nuclear security regulatory achievements over the last years are also presented, focusing on the core functions of regulations drafting, authorization, inspection, and enforcement. Sustaining the efficiency and effectiveness of the nuclear security regulatory system throughout planning to sustain effective operations, strengthening and maintaining regulatory competence, fostering nuclear security culture, and international cooperation is also discussed. Although much had been achieved to improve the regulatory system some actions are still needed and in this context, the paper proposes some ways of further improving the effectiveness of the regulatory system for nuclear security. Moreover, it highlights some lessons learned and main challenges in regulating nuclear security.

References

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