

DEVELOPMENT OF NUCLEAR SECURITY REGULATIONS IN GHANA

The Nuclear Regulatory Authority Act, 2015 (Act 895) established the Nuclear Regulatory Authority, Ghana in January 2016 as the competent authority for regulation of nuclear and radiological activities in Ghana. The main practices and activities related to radioactive or nuclear material in Ghana are: Medical (General X-ray: computed tomography, mammography, fluoroscopy; Radiotherapy: tele-therapy, brachytherapy, nuclear medicine, linear accelerator [medical]); Industrial (nuclear gauge, oil well logging, destination inspection scanners, industrial radiography); Academic (test sources); Gamma Irradiator Facility; Research Reactor; Linear Accelerator; Radioactive Waste Facility; Borehole Disposal System [BDS]; and ongoing efforts to introduce Nuclear Power Plant by 2029. The Authority has developed Nuclear Security Regulations which comprises provisions for physical protection of nuclear installations, security of nuclear and other radioactive material in use, storage and transport. The regulations also addresses nuclear material accounting and control for nuclear security, nuclear forensics and addresses management systems including institution of nuclear security culture by authorized persons. The regulations address trustworthiness programme of the authorized person as well. The initial effort sought to develop three different sets of regulations for security of radioactive sources, physical protection of nuclear facilities and transport security. The three drafts were developed after which assistance was received from the International Atomic Energy Agency (IAEA) to review the draft regulations. The Authority solicited review of the draft regulations for security of radioactive sources from our various stakeholders including Customs Division of Ghana Revenue Authority, National Disaster Management Organisation, Ministry of the Interior, Attorney General's Department, Ghana Atomic Energy Commission, Ghana Immigration Service, Petroleum Commission, Ghana Civil Aviation Authority, Ghana Ports and Harbours Authority, Ministry of Environment Science Technology and Innovation as well as international partners such as IAEA and Office of Radiological Security of United States Department of Energy. The transport security regulations and physical protection of nuclear installations regulations have also received review from IAEA Experts after which a National Workshop and Consultative Meeting were held, respectively for the two to consolidate the inputs from the Experts with support from IAEA. A National Workshop is planned to finalise the expert discussion on the Nuclear Security Regulations prior to review by the Nuclear Regulations Guidance Committee of the Authority. Following that review, Stakeholder inputs will be solicited for three months after which a Stakeholder Forum will be held to complete the consolidation of the regulations. The Research and Technical Committee of the Board of NRA will review and forward to the Board for further review. The draft regulation will then be forwarded to the Attorney General's Department through the Sector Ministry for Parliamentary review and passing as a legislative instrument. It is envisaged that the combination of the entire provisions into a single regulation will meet challenges of defining security levels, setting out general provisions and a tendency to consider the sets as different and only being combined into a single piece. We seek to develop the regulation into a form that will easily be understood and accessible to the authorized person without the tedious effort of blending three different sets of regulations seeking to achieve the similar goal of securing nuclear material and other radioactive materials in use, storage and transport. Ghana's international cooperation in the development of the regulations is discussed. The active role of the IAEA in the development of the regulations is also presented.

Gender

Male

State

Ghana

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