Radioactive Waste Management in Nepal

In Nepal, radioactive sources are primarily used in the medical field. The Radioactive Substances (Utilization and Regulation) Act of 2020 became effective in July 2020, and the Radioactive Substances (Utilization and Regulation) Rules of 2022 were approved in August 2022. These developments have paved the way for the establishment of a regulatory body responsible for managing radioactive waste. They also include provisions for requirements and standards for radioactive waste management based on the International Atomic Energy Agency's (IAEA) Safety Standard.

Chapter 9 of the Radioactive Substances (Utilization and Regulation) Act of 2020 deals with provisions related to radioactive waste management. Article 36 prohibits the importation of radioactive waste into Nepal. Article 37 outlines the licensee's responsibility for the safety and security of radioactive waste, including its disposal in an approved location or mechanism as specified by the regulatory body. Article 38 addresses the export of radioactive waste with the permission of the regulatory body, in accordance with relevant international obligations along the export route. Article 39 contains provisions for safety and security, including the formulation and implementation of necessary standards to protect human health, animals, and the environment from the adverse effects of radioactive waste.

Chapter 7 of the Radioactive Substances (Utilization and Regulation) Rules of 2022 pertains to provisions regarding radioactive waste management or disposal. Article 37 classifies radioactive waste, while Article 38 explains the provisions for the disposal of radioactive waste. Article 39 outlines the duties and responsibilities of license holders with respect to the management of radioactive waste.

The establishment of a radiation regulatory body in Nepal has been long overdue, but there are positive signs that its work is in progress for managing radioactive waste through the Nuclear Materials Management Division of the Ministry of Education, Science & Technology of Nepal. Despite the challenges of establishing a regulatory body and ensuring the availability of competent experts, Nepal is making progress in the management of radioactive waste, including high-activity radioisotopes. Various IAEA Technical Projects are currently underway, focusing on strengthening regulatory efforts through training, expert missions, equipment donations, and support in the development of rules, regulations, and standards. Additionally, the United States Department of Energy's Office of Radiological Security (ORS) has expressed its interest in assisting Nepal with the management of disused radioactive sources.