



**THE KINGDOM OF LESOTHO NATIONAL REPORT
TO THE 7TH REVIEW MEETING OF THE CONTRACTING
PARTIES TO THE JOINT CONVENTION ON THE SAFETY
OF SPENT FUEL MANAGEMENT AND ON THE SAFETY
OF RADIOACTIVE WASTE MANAGEMENT**

Second Report, submitted on 28th April, 2021

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1. Section A. Introduction:

This report is the second Lesotho National Report under the Joint Convention. The report highlights the current use of radioactive sources in Lesotho and management of waste resultant thereto.

The Government of the Kingdom of Lesotho has since enacted the Radiation Protection Agency Act of 2018 (Act), the report therefore makes an update of the current measures in place being implemented by the Government of Lesotho for radioactive waste management. Spent fuel management is still excluded in this report as Lesotho does not have any nuclear power plants. The Act is annexed herein and marked “Annex 1”.

During the reporting period, the Government has established the Board under the Act. The Board is currently in the process of recruiting the Agency Chief Executive Officer, to be followed by the appointment of other Agency staff members.

The report has been coordinated by the office of the National Contact Point for the Joint Convention in consultation with relevant national authorities responsible for issues regarding radioactive waste management in Lesotho.

The report has been prepared in line with the report provisions of the Joint Convention including the adopted Guidelines regarding the Form and Structure of National Reports as follows:

- Section A: Introduction;
- Section B: Policies and Practices;
- Section C: Scope of Application;
- Section D: Inventories and Lists;
- Section E: Legislative and Regulatory System;
- Section F: Other General Safety Provisions;
- Section H: Safety of Radioactive Waste Management;
- Section I: Transboundary Movement;
- Section J: Disused Sealed Sources;
- Section K: General Efforts to Improve Safety;
- Section L: Annexes;

2. Section B - Policies and Practices:

The National Environment Policy of 1998 is still the relevant Policy in place regarding issues related to the protection and conservation of the environment with a view to achieving sustainable development. The Agency under its functions by the Act is mandated to advise the Government on the development of policies related to activities and practices regulated under the Act.

3. Section C - Scope of Application:

3.1 Lesotho does not have civilian nuclear reactors. There are also no reprocessing facilities.

3.2 Lesotho has civilian applications, though there is no inventory of waste thereof. Currently, these civilian applications report on disused sealed sources. There are no nuclear fuel cycles in Lesotho.

3.3 There is no radioactive waste reported under this Convention within the military.

3.4 Lesotho does not have spent fuel management facilities including radioactive waste management facilities.

4. Section D – Inventories and Lists:

The Agency has not yet carried out any inventories of radioactive waste, including orphan sources. Awareness activities are yet to be undertaken in this aspect.

5. Section E – Legislative and Regulatory System:

PART II of the Act provides for the establishment of an independent Radiation Protection Agency. The objects of the Agency are to: ensure that radiation sources and other radioactive materials are used exclusively for beneficial and peaceful purposes; provide for protection of human health and the environment against harmful effects of radiation hazards.

The functions of the Agency amongst others include the following: regulation of all activities and practices involving ionizing radiation; advice Government on the development of relevant policies; issue, amend, suspend or revoke licences and set licence conditions for such activities and practices; monitor, inspect such activities and practices and take enforcement measures when required; develop safety principles, criteria and guidelines; establish the necessary reporting and record keeping systems;

Part VII of the Act provides for Radioactive Waste Management and Decommissioning of Radiation Facilities. This Part provides for the following:

- prohibition of importation of radioactive waste;
- Requirements for licensing of radioactive waste management including storage, conditioning, transportation, disposal, and export;
- Criteria in determining whether to approve a license to export radioactive waste;
- Responsibilities of the licensee in radioactive waste management, such as: protection of employees, public and environment; minimum generation of waste; adherence to regulations and guidelines; compliance to international best practices; adherence to requirements on biological, chemical, physical components of radioactive waste; removal of residual emissions; consideration of future generation; appropriate funding arrangements for radioactive waste management;
- Provision for decommissioning license and requirements thereto such as; requirement for a decommissioning plan; regulatory requirements during the decommissioning phase;

pre-licensing requirement for sufficient financial resources to cover the costs associated with safe decommissioning including management of the resulting waste.

- Responsibilities of the licensee during decommissioning;

6. Section F – Other General Safety Provisions:

Additionally to safety provisions outlined under section E above, the Act requires the licensee of radioactive waste management to take into account the interdependency among the different steps in radioactive waste management are taken into account at all levels in accordance with the regulations and guidelines.

7. Section H - Safety of Radioactive Waste Management:

The safety of radioactive waste management is provided for under Section 33 of the Act.

Most users of radioactive sources in Lesotho continue to do the following to enhance their safety:

- Appointed radiation protection officers;
- Provision of PPE (lead apron) for exposed workers;
- Medical surveillance for exposed workers every six months; and
- Disused Source Agreement with the suppliers.

8. Section I: Transboundary Movement:

Lesotho does not have a record of experiences concerning transboundary movements of radioactive waste.

9. Section J: Disused Sealed Sources:

Most users of radioactive sources in Lesotho such as Letšeng Diamonds Company, Brewery Company and Road contractors have developed an occupational radiation protection procedure which requires that the disused radiation source agreement is entered into with the suppliers to dispose of the sources appropriately.

10. Section K: General Efforts to Improve Safety:

A full functional Agency is mandated to ensure the proper management of radiation sources and waste thereto, for protection of human health and the environment from the harmful effects of ionizing radiation; developing skills for the Agency personnel in authorization, inspection and enforcement will strengthen the regulatory capability of the authority; raising public awareness on radiation safety will enhance communication with the public on radiation safety.

The indicative outputs could be developed in the following sequence: implementation of the Act and development of Regulations; development of training plan; updating of inventory of sources; development of guides and codes; training of personnel; acquisition of equipment; updating of inventory of sources; development of outreach strategy; training of personnel; implementation of outreach strategy; updating of inventory of sources; external review of regulatory system; training of personnel; acquisition of equipment.

Development of radioactive waste management policy and strategy will enable the Agency to establish a radioactive waste collection and disposal center for better management of waste. Establishment of waste inventories will inform the Agency of strategic actions to be taken using a graded approach. Awareness raising on radioactive waste management will enhance communication with the public on radiation safety.

11. Section L: Annexes:

- **Annex 1: Radiation Protection Agency Act**

- **Annex 2: List of participating institutions:**

1. Ministry of Agriculture and Food Security
2. Ministry of Communications, Science and Technology
3. Ministry of Defence and National Security
4. Ministry of Development Planning
5. Ministry of Education and Training
6. Ministry of Energy and Meteorology
7. Ministry of Health
8. Ministry of Public Works and Transport
9. Ministry of Tourism, Environment and Culture
10. Ministry of Trade and Industry
11. Ministry of Water
12. Disaster Management Authority
13. Roads Directorate
14. National University of Lesotho
15. Lesotho Revenue Authority – Customs

- **Annex 2: Compilation of treaties under the auspices of the IAEA:**

1. Application of Safeguards in connection with the Treaty on Non-Proliferation of nuclear Weapons;
2. African Nuclear-Weapon-Free Zone Treaty (the Treaty of Pelindaba);

3. Protocol Additional to the Agreement between Lesotho and the IAEA for the Application of Safeguards in connection with the Treaty on Non-Proliferation of Nuclear Weapons;
4. Convention on Physical Protection of Nuclear Material;
5. Amendment to the Convention on Physical Protection of Nuclear Material;
6. Revised Supplementary Agreement for Provision of IAEA Technical Cooperation;
7. African Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology;
8. Convention on Early Notification of Nuclear Accident;
9. Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency;
10. Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management; and
11. International Convention for the Suppression of Acts of Nuclear Terrorism.