



1.0 LEGAL AND REGULATORY FRAMEWORK

Section 56 of the Atomic Energy Act Cap. 154 requires that an authorized person shall institute security measures to prevent, protect against, and ensure timely detection of theft, loss of, and unauthorized use or removal of radioactive sources during all stages of management.

The Atomic Energy (Security of Radioactive Materials) Regulations, 2021 specify the minimum requirements for security of radioactive materials in use and storage. This is aimed at providing for prevention of, detection of, and response to unauthorized acts involving radioactive materials. AEC has the mandate to ensure the implementation of the legal requirement and develop national nuclear security infrastructure.



2.0 DEFINITION OF NUCLEAR SECURITY

Nuclear security refers to the means and ways of preventing, detecting and responding to theft, sabotage and unauthorized access to, or illegal transfer of nuclear and other radioactive material, as well as associated facilities.

PILLARS OF NUCLEAR SECURITY



PERSONNEL
RELIABILITY



PHYSICAL
PROTECTION



DETECTION &
MONITORING



REGULATION &
CONTROL



RESPONSIBILITY
& CULTURE

3.0 NUCLEAR SECURITY FUNCTIONS



Prevention

occurs when an adversary, otherwise motivated to perform a malicious act, is dissuaded from undertaking the attempt.



Detection

is the discovery of an attempted or actual intrusion which could have the objective of unauthorized removal or sabotage of a radioactive source.



Delay

impedes an adversary's attempt to gain unauthorized access or to remove or sabotage a radioactive source, generally through barriers or other physical means.



Response

encompasses the actions undertaken following detection to prevent an adversary from succeeding or to mitigate potentially severe consequences.



Security management

includes ensuring adequate resources (personnel and funding) for the security of sources.

4.0 NUCLEAR SECURITY THREATS

Nuclear threats should be reported promptly. Typical events triggering reporting include;

- I. Suspected or actual theft of a radioactive source
- II. Intrusion into access controlled area
- III. Loss of control over a radioactive source
- IV. Failure or loss of security systems
- V. Failure of equipment containing sources that may have security implications



The location of any nuclear event should be managed as a potential crime scene as appropriate.



ATOMIC ENERGY COUNCIL

NUCLEAR SECURITY OF RADIOACTIVE MATERIAL



Safety and security from harmful radiation



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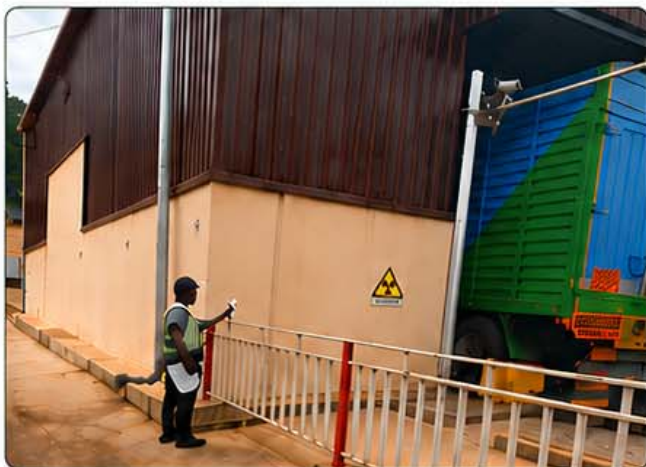
5.0 ROLE OF AEC IN THE NUCLEAR SECURITY REGIME

A. Issuing Regulations and Guidance Documents for Security of Radioactive Materials in Facilities

In order to ensure that radioactive materials in licensed practices and facilities are used with sufficient levels of security, AEC, pursuant to section 72 of the Act issued the Atomic Energy (Security of Radioactive Materials) Regulations, 2021 and Guidance documents related to nuclear security.

B. Conducting Nuclear Security Inspections in Facilities

In order to monitor and verify the compliance of operators to regulatory requirements for nuclear security, AEC conducts nuclear security inspections in facilities to assess the compliance of the facility with the security requirements of the Atomic Energy (Security of Radioactive Materials) Regulations, 2021.



AEC Inspector conducting an inspection at the portal monitor at URA border point at Katuna border point.

C. Coordination of Human Resource Development and Technical Sustainability for Nuclear Security Activities with other Agencies

AEC as the Custodian of Uganda's Integrated Nuclear Sustainability Plan (INSSP) coordinates with other agencies both local and international in efforts to strengthen Uganda's capacity to implement Uganda's Nuclear Sustainability Plan (INSSP) towards a strong national nuclear security regime.



D. Training of Stakeholders in Nuclear Security

AEC builds the capacity of stakeholders by providing training in nuclear security, roles and responsibilities, detection of illicit radioactive materials, implementation of security measures during Major Public Events among other topics.



6.0 GENERAL REQUIREMENTS FOR NUCLEAR SECURITY

- i. **Responsibility of the authorised person:** The authorised person is primarily responsible for establishing and implementing measures to ensure the security of the radioactive source and for complying with all applicable regulatory requirements.
- ii. **Physical Protection:** Secure radioactive sources against theft, sabotage, or unauthorised access by limiting access to authorised personnel only.
- iii. **Establishment of a Quality Assurance Program:** Establish and maintain a quality assurance program to ensure the effectiveness and continuous improvement of nuclear security measures.
- iv. **Security Culture:** Promote a culture where security is everyone's responsibility.
- v. **Detection and Monitoring:** Install intrusion detection systems where appropriate.
- vi. **Accounting and Inventory Control:** Keep an up-to-date inventory of all radioactive sources.
- vii. **Transport Security:** Secure radioactive material during transport.
- viii. **Emergency Preparedness and Response:** Develop procedures for security incidents.
- ix. **Incident Reporting:** Report theft, loss, unauthorized access, sabotage, or attempted security breaches to the AEC immediately.