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**CNESTEN's experience and current practices in the safety and security of radioactive sources**

**Content**

Over recent years, the National Center for Energy, Science and Nuclear Techniques (CNESTEN) has successfully implemented measures and programmes for ensuring the safe and secure use of its radioactive sources throughout their life cycle. These programmes are applicable from the stage of importation to their final disposal, and they include:

-The importation of radioactive sources, after the authorization file was approved by the Moroccan Agency for Nuclear and Radiological Safety and Security (AMSSNuR); the center stipulates that used sources return to the supplier to reduce the amount of radioactive waste;

-The transport of radioactive sources is done in full compliance with national regulations to guarantee safety and security during transport;

-During usage of the radioactive sources, the practice at the site was to store all sources in a single source pit, with a single key being able to unlock each source. Restriction of access to the storage area prevents unauthorized access or damage to, and loss, theft, or unauthorized transfer of, radioactive sources, so as to reduce the likelihood of accidental harmful exposure to such sources. A register controls daily movements and use of radioactive sources, and every year the inventory is updated with all the history of the source and crucial information about the radioactive source, in addition to physical verification of its existence in the location of the sources.  Among the future projects is the establishment of a computer database for registers and inventory.

-The Center is designated as the organization responsible for the management of radioactive waste generated at the national level by the various socio-economic operators working in the health sectors, the industry, the industry. Agriculture, mines and scientific research.

 In order to fulfill this mission, the CNESTEN has two facilities for:

* The treatment of liquid effluents, the conditioning of solid waste, as well as the dismantling of radioactive sources sealed in categories 3 to 5;
* The storage of radioactive waste is packaged in four cells, which can meet national needs for a period of at least thirty years.

-The center provides technical support to the state to provide for rapid response for regaining control over
orphan sources and searching for missing sources and securing found sources.

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