

Challenges in securing vulnerable radioactive sources in Senegal

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SYNOPSIS

The security of radioactive material began to become a concern for the Regulatory Authority of Senegal, following the various discoveries of sources that were used and stored at sites during visits made as part of our inspection program. Radiation measurements at some medical, industrial and research facilities have uncovered radioactive sources such as Ra-226 needles, Cs137, Am241-Be and Sr-90 sources that have been formerly used and abandoned in places reserved for any type of equipment out of order or stored with very low safety measures and no security measures. The challenges of managing the security of these vulnerable and all-used sources have led Senegal, with assistance from the International Atomic Energy Agency, to develop its Integrated Nuclear Security Support Plan (INSSP) in 2014.

After these findings, the Regulatory Authority asked the managers of these sites to affix the necessary signaling and to put in place measures to prevent unauthorized access to, or removal of, the radioactive source. Steps were then taken to seek the support of the IAEA and other partners to find solutions either for repatriation to countries of origin or for strengthening nuclear safety and security.

The purpose of this article is to show how the Regulatory Authority has managed to first inventory a number of used and abandoned sources and then to characterize and condition them with the help of the IAEA to ensure their regulatory control and security. Support from other partners for inventory and training on nuclear security will also be shown.

References:

1. Law No. 2004-17 of 15 June 2004 on the Protection against Ionizing Radiation
2. Law No 2009-14 on nuclear Security and Radiation protection
3. Decree No. 2010-893 of 30 June 2010 on the organization and functioning of the Radiation Protection and Nuclear Safety
4. Law 2017-21 of 5 April 2017 authorizing the President of the Republic to ratify the Amendment to the CPPNM.
5. Law amending the law No 65-60 of 21 July 1965 on the Penal Code
6. Protocol with US NRC
7. National INSSP Plan
8. Report of the Regional Training on Demonstration on Conditioning of spent low activity gamma – emitting and neutron sources, 16 -20 July, Dakar, Senegal

Gender

Female

State

Senegal

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