Strengthening radioactive waste safety in Africa

Background...
Sealed radioactive sources have brought great benefits to a variety of industries in developing as well as in developed countries. When these sources come to the end of their useful life, they are still radioactive enough to be hazardous to people and the environment, and therefore should be carefully managed.

AFRA approach and successes...
Significant assistance has been provided by AFRA to African countries in all aspects of radioactive waste management, including establishing basic infrastructure, preparing technical guidelines, sending experts on advisory missions and assisting with the development of legislation and regulations.

AFRA promotes the establishment of centralized national radioactive waste management facilities in Member States in order to manage waste in the safest and most secure manner. A major concern is the long term storage and final disposal of conditioned sources possible. AFRA has developed, in collaboration with the Nuclear Energy Corporation of South Africa (Necsa), the borehole disposal of disused sealed sources (BOSS) system. The BOSS system is designed to provide safe, secure, permanent and economical disposal of disused sealed radioactive sources.

AFRA has also supported the development of a mobile hot cell facility to manage spent high activity radioactive sources (SHARS). Future operations using mobile hot cells are in preparation or are planned in several countries under the IAEA Nuclear Security Plan.

The BOSS system.