



Advantages of Installing a Storage Centre for Disused Sources in a Military Installation for Poor or Developing Countries



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Abstract

Taking the Code of Conduct on Technological and Physical Safety of Radioactive Sources, States have the obligation to protect people, society and the environment from sources that are in disuse, which is why they must create various systems for the control of these sources. However, there are nations that have abandoned sources in spaces where civilians can enter without permission and with the intention of stealing materials that are economically useful to them in the black market of merchandise, they can generate accidental irradiations and produce an emergency at the territorial level.

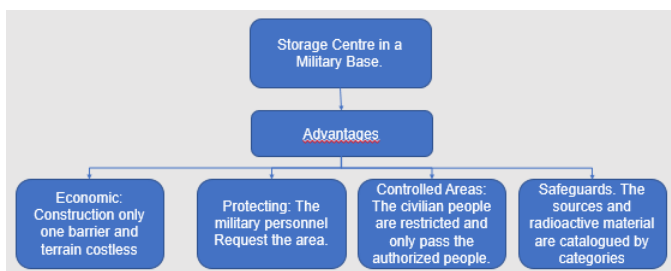
The introduction of storage Centre in one military instalation have many advantages in terms in security and safety. The maintain of these instalation have a less cost because the military instalation have a security structure and the civilians pass are restricted. Addend that the instalation of the storage centre is in zones where not have training or habitable zones that not affect their funconality.

Objectives

The use of a Military installation can offer broad advantages in terms of Physical security:

- The installation will have two barrier systems, the first being the Military zone where the passage of civilians is limited and the second being the system itself of the installation of the space for the protection of these disused sources.
- The defense in depth: the authorities can act in the event of an alarm 24 hours a day without moving from one place to another
- The passage are restricted only to persons authorized to handle these sources, transport of radioactive sources and National authorities in legislative matters.
- The economic ease of a facility as it could save installation costs and it is not necessary to mobilize security personnel.
- The possibility of protecting the radioactive sources of the five categories and ordering them by date of entry, disuse, nation where the source is produced and its possible repatriation of the source without the need for cumbersome locations of these power sources in the various places sheltered outside these facilities.

Design of the installation



3.1. Building ubication in the base

The storage centre can be building in a zone where is inhabitable and away from the training or weaponry guard zones or residential and administrative buildings that avoid public knowledge and sabotage intents.

3.2. Defense in depth

Conclusions and Acknowledgements

Having a waste collection facility on a military base generates great advantages in terms of land, security and protection from radioactive sources, with less investment than a center in a civil facility which generates a set of risks such as theft, sabotage or simply smuggling of dangerous goods that can cause major radiological accidents.

Bilbiography.

- IAEA-TECDOC-1355. Security of radioactive sources. IAEA 2003.
- IAEA-TECDOC-1690, Review of Sealed Source Designs and Manufacturing Techniques Affecting Disused Source Management.
- INTERNATIONAL ATOMIC ENERGY AGENCY, Code of Conduct on the Safety and Security of Radioactive Sources, IAEA, Vienna (2004).
- INTERNATIONAL ATOMIC ENERGY AGENCY, Categorization of Radioactive Sources, IAEA Safety Standards Series No. RS-G-1.9, IAEA, Vienna (2005).

The military personnel will have the ability to secure facilities with guards' chronograms. Likewise, will have the possibility to take access to the security information systems and have the first respond, 24 hours of guards and tactics strategies to beat of any threatening. The military personnel must have knowledge in radiological Protection, use of communication systems among the different parties involved, and avoid unauthorized or unplanned stops on the way to the operation site and back to the authorized facility.

3.3. Authorized people

- The authorized people that have access of the installations have ID cards, biometrics access and have transport.
- The transport of radioactive sources will have the control since the access in the military base, they must have a guide of transport of the radiological material completed.
- In addition, the storage building have the possibility to training personnel in radiological protection, physical installations and waste storage
- Other people that have access in the building are the national and international regulatory personnel.

3.4. Cost of Installation.

The centre will be building under a first barrier or protected areas that block the access to the unauthorized people in the installation like fence or wall, but the limited area is the military base and the military personal that gain in cost of building.

The radioactive source storage area may have adequate security measures to prevent unauthorized access:

- Locks on access or padlocks;
- Adequate illumination;
- CCTV with motion detection;
- Audible alarms;
- Perimeter fences;
- Codified access (magnetic card or digital codes);
- Access to storage area only by authorized personnel.

3.5. Safeguard of sources

The introduction of radioactive materials in the waste installations can be catalogued by at least three categories: I, II, III and can be industrial, Medical, orphans and other. These materials are operated by Security Officers and they will be operating the sources by:

- It will separate the sources by category
- It will catalog the sources by calibration date, lot and date of disuse

Experience in Venezuela.

The Instituto Venezolano de Investigaciones Cientificas IVIC is the big Scientific Centre of the Country and that is militarized since its inauguration. In these installations have a Temporal Radiative Source Depository: That sources are industrial, medical and others.

