

Proposal of a database system for accounting and control of materials outside of the Regulatory Control MORC in Venezuela.

Venezuela is a country that does not have high power nuclear reactors, until now a cyclotron and a Cobalt-60 sterilization plant which is located in the Instituto Venezolano de Investigaciones Científicas (IVIC), both located in the Greater Caracas.

The only way to obtain radioactive materials for medical, industrial and research use is through acquisitions to foreign suppliers. Buyers must have the necessary legality to make acquisitions and clients must have the necessary tools and permits to manage and safeguard radioactive sources, in addition, radioactive waste management must be carried out to ensure protection of the environment and sources when they are no longer in use. However, these materials from the moment they enter the National territory must be informed to the corresponding National Authority (Office of Atomic Energy for the Industrial part and Sanitary Radiophysics for the Health sector) about their use, handling, detection and protection tools, as well as the control of radioactive waste and what to do in these materials.

For this reason, it is proposed to the National Authorities the design of a Database System for accounting and Control of Materials Outside of Regulatory Control MORC in Venezuela. The purpose of this system is to control radioactive materials: purchase, arrival of the source to customs, the journey made from customs to the place of management, its location and its disuse. In addition, it will have a registry of the companies, industries, hospitals and research centers that handle radioactive materials from both open and sealed sources, the storage states of the sources, the states of the detection devices (Detectors of area, cameras, alarms and emergency buttons), contact telephones of all persons belonging to these institutions, their functions, classification of management spaces and use of sources. Armor calculations, detection systems, security and waste status will also be taken into account.

The entire database will be completed between the Regulatory Authority and the final clients. Each source must include: calibration date, initial activity, lot number. Also, the MORC Control system must include Fire and police telephones to guarantee a timely response when presenting an emergency, theft or sabotage.

The database can be obtained through e-mail connections, sending a format where the Radiation Protection Officer must complete all the information required for the Regulatory Authority to check it through the scheduled visits.

All the data offered to the Regulatory Authorities will only be used for informative purposes to obtain a faster response and keep in mind that the unused sources are included in the accounting to avoid any type of loss, theft and loss. Maintain the alert status of these radioactive sources and make scheduled visits to ensure the safeguard until their final extraction. It also reports on the qualification of both the importing companies and the institutions that manage the sources, if they are registered or if they are updated, among other purposes. This database system will only be managed by Nuclear Regulatory Authorities such as the Nuclear Energy and Sanitary Radiophysics Office and will be for Institutional use.

Gender

Male

State

Venezuela

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