Radiation Safety Management System in a Radioactive Facility

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Abstract

This paper illustrates the Cuban experience in implementing and promoting an effective radiation safety system for the Centre of Isotopes, the biggest radioactive facility of our country. Current management practice demands that an organization inculcate culture of safety in preventing radiation hazard. The aforementioned objectives of radiation protection can only be met when it is implemented and evaluated continuously. Commitment from the workforce to treat safety as a priority and the ability to turn a requirement into a practical language is also important to implement radiation safety policy efficiently. Maintaining and improving safety culture is a continuous process. There is a need to establish a program to measure, review and audit health and safety performance against predetermined standards.

All those areas of the radiation protection program are considered (e.g. licensing and training of the staff, occupational exposure, authorization of the practices, control of the radioactive material, radiological occurrences, monitoring equipment, radioactive waste management, public exposure due to airborne effluents, audits and safety costs).

A set of indicators designed to monitor key aspects of operational safety performance are used. Their trends over a period of time are analyzed with the modern information technologies, because this can provide an early warning to plant management for searching causes behind the observed changes. In addition to analyze the changes and trends, these indicators are compared against identified targets and goals to evaluate performance strengths and weaknesses.

A structured and proper radiation self-auditing system is seen as a basic requirement to meet the current and future needs in sustainability of radiation safety.

The integrated safety management system establishment has been identified as a goal and way for the continuous improvement.

KEYWORDS: radiation safety management system, safety culture, radiation protection program, radioactive facility, safety performance indicators, occupational exposure, public exposure