

Monitoring Control Program as a tool for Regulatory Control

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Abstract

The Institute of Radiation Protection and Dosimetry (IRD) of the Brazilian Commission of Nuclear Energy (CNEN) is responsible for developing, establishing and carrying out an independent assessment to verify the adequacy, effectiveness and accuracy of environmental radiological control carried out by licensed and controlled facilities. This independent assessment is performed by Environmental Monitoring Control Program (MCP).

The MCP is a regulatory control and its main goal is to provide public and environment with an appropriate protection level against harmful effects of ionising radiation. The main purpose of the MCP is to verify whether applicable requirements prescribed by legislation are met, the environmental radiological control of the facilities are adequate and effective and the facilities are able to generate valid measuring results. The MCP is carried out in order to evaluate the quality of environmental radiation monitoring programs (EMP) and the effectiveness of their implementation, sampling conditions in the field, changes of environmental aspects in the impact area, adequacy of and adherence to procedures established and other applicable documents, technical competence of the staff and the necessary resources to ensure the required quality of the EMP. The MCP has been performed by activities should include inspecting and auditing of several types of nuclear and radioactive facilities. The inspection programme include the joint sampling program (CCP). The aim of the CCP is to check data of environmental monitoring of operator.

The MCP was implemented in 1994. Ever since several problems related to the environmental control performed by operator was identified. The most important of them include problems related to the preparation and analysis of environmental samples, training of personnel, necessary resources, adherence of procedures to the purpose of the monitoring, fulfillment of procedures established, adequacy of the EMP and EMP records.

In 2002 an quality management system (QMS) was introduced in the conformities evaluation activities performed by IRD. The QMS was implemented in accordance with the requirements of ISO/IEC 17025 and ISO/IEC 17020. Improvement opportunities of the MCP were identified in the MCP such as inspection procedures updating, training of personnels and the optimization of the quality program in the radioanalysis of the CCP.

The description, difficulties found and results of the MCP are presented. Measures to improve the MCP performance are discussed.

KEYWORDS: *environmental regulatory control, monitoring control program, joint sampling program, inspection, audit, quality management system, ISO IEC 17025, ISO IEC 17020*