Statens strålevern
Norwegian Radiation Protection Authority

Norwegian support in Development of Standards and Regulations on Radioactive Waste Management and Long-Term Monitoring in Uzbekistan

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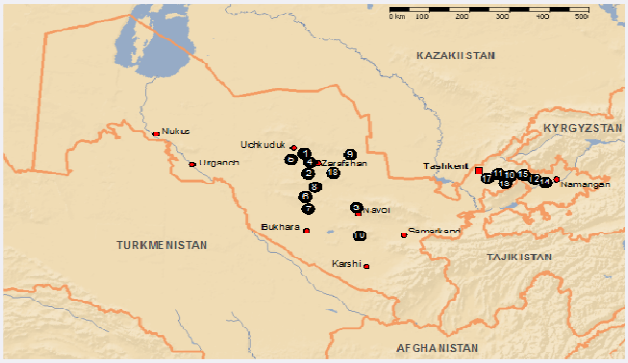
Location of Central Asia

Location of the uranium industrial facilities in Uzbekistan



Abstract

The main factors determining the state policy in the field of radiation safety and radioactive waste management in Uzbekistan are -presence of radioactive waste including the waste from uranium mining and milling industry and other sources, and need for rehabilitation of the contaminated territories. Former uranium production facilities were often simply abandoned, without taking any security measures or left unattended after the insufficient measures for their closure. Currently in Uzbekistan there are no sufficient national regulations for the protection of personnel, population and environment during the work with radioactive waste from uranium production. In September 2010, Norwegian Radiation Protection Authority (NRPA) has signed a new contract with State Inspectorate on Safety in Industry and Mining of Republic of Uzbekistan (SISIM) -regulatory body of Uzbekistan on the "Support in Development of Standards and Regulations on Radioactive Waste Management and Long-Term Monitoring in Uzbekistan. The purpose is to provide assistance to the SISIM in: development of the regulatory requirements and rules on protection of personnel, the public and the environment in planning and performance of operations with radioactive wastes; consolidation of the infrastructure of the regulatory body of Uzbekistan for radiological protection of personnel, the public and the environment in radioactive waste management at the tailing dumps of the uranium industry.The work within the Project framework will cover both the contaminated territories of Uzbekistan and the boundary regions, which play an important role in safety of radioactive waste, radiological material and equipment of high risk in all the regions of Central Asia.

Introduction

During the former Soviet times uranium industry was one of the most developed industries in the Republic of Uzbekistan. Many large uranium deposits with its relatively high content (over 0.02%), which sometimes reached 12.8–18.3%, were discovered in the area of junction of the Syr-Darya and Amu-Darya Rivers. In general, 24 uranium deposits were discovered and explored and the main ones are located nearby the towns of Uchkuduk, Zarafshan, Zafarabad, Nurabad, Angren, Chorkesar and Krasnogorskiy. The largest part of waste was stored at the sites of the mines, in particular, on the bank vaults of the valley from Yangiabad to Angren. The off-balance (low-grade) ores from the regions of their initial mining in the Central Kyzyl-Kum Province were mainly transported to the outskirts of Uchkuduk, where they are stored in the dumps to present day. It is well-known that the nuclear materials and technologies bring both the benefits of their use in different sectors from agriculture to electric-power production, and the certain risks for the health of personnel, the public and the environment. Therefore, the risks are to be properly foreseen and assessed. The development of an adequate legislative and normative-legal base just enables to achieve the above target and is a challenge for national regulators. Although a regulation of radiological protection is a national responsibility of each State, radiation risks can cross national borders, and international co-operation serves to improve global safety by exchanging experience and improving capabilities to control threats, to prevent conflicts and, as a result, to mitigate any harmful consequences

Objectives

To develop the regulatory requirements for protection of personnel, population and the environment in the field of radioactive waste management at the uranium industry tailings impoundments and strengthening the infrastructure of the Regulatory Authority of the Republic of Uzbekistan.

Methods

Identification of the problems and gaps through the analysis so called "threat assessment" and comparison of the existing regulations with international standards. The same method was successfully used in bilateral projects in cooperation with NRPA within a regional framework with Central Asian countries such as: Kazakhstan, Kirgizstan and Tajikistan during 2009-2011.

Results

Document	Availability in the regulatory base of the Republic of Uzbekistan
National policy and strategy on radioactive waste management (which should include all the radioactive waste generated or potentially to be generated in the country)	Partially developed
On the classification of radioactive waste including those the uranium industry	
Regulatory requirements on such important issues as clearance levels, optimization, and action levels for taking measures in existing exposure situations according to international recommendations.	Absent
Regulatory requirements for the safe management of radioactive waste including those from mining and milling.	Partially developed Sanitary rules on radioactive waste management Partially developed in SanPiN No 0251-08 and required an improvement.
Regulatory requirements for the elaboration of the safety case and safety assessment for any activity or facility dealing with the management of radioactive waste (including: design, sitting, construction, operation shutdown, decommissioning, post closure and remediation when it is needed)	Absent
Regulatory requirements for final disposal of radioactive waste	Absent
On the institutional control of shutdown, closed mining facilities and disposal facilities.	There are internal rregulations for the control of stopped facilities at closed plants
Regulations on safety closure, decommissioning and remediation of past practices or existing exposure situations.	Developed but did not approved
Proper legal framework for the establishment of an effective regulatory infrastructure and framework.	Partially developed. Particularly, according to the Law of Republic of Uzbekistan from April, 13th, 2011 № ZRU-282 "About modification and additions in the Law of Republic of Uzbekistan " About radiation safety " the State Inspectorate co-ordinates activity of the state control bodies in the field of maintenance of radiation safety, "Sanoatgeokontechnazorat" is defined as main control body for RW Management in Uzbekistan