ICS 13.280
CCS F74

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB 23726-2009

Regulation for radiation environmental monitoring in uranium mine and mill

铀矿冶辐射环境监测规定

Issued on: May 6, 2009 **Implemented on: February 1, 2010**

Issued by: Ministry of Ecology and Environment

Table of Contents

Foreword

All the technical contents of this standard is mandatory. The Standard Appendix A and Appendix B are informative. The standard proposed by China National Nuclear Corporation. This standard by the National Standardization Technical Committee on Nuclear Energy (SAC/TC58) centralized. This standard was drafted. the Jinyuan Uranium industry limited liability company. Drafters of this standard. Zhao Sheng, Wang Pu, Duan Jian Chen.

Uranium Mining and radiation environment monitoring provisions

1 Scope

GB 23726-2009 is the Chinese national standard on regulation for radiation environmental monitoring in uranium mine and mill, in the field of environment and health protection, safety. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 6 May 2009 by the Ministry of Ecology and Environment, and has been in force since 1 February 2010. Classification: ICS 13.280, CCS F74. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the uranium mining and metallurgy environmental radiation monitoring, effluent monitoring, sample collection and processing, measurement and analysis methods, data processing, quality And requirements to ensure the content and the format and content of monitoring reports and statements. This standard applies to environmental radiation monitoring of uranium mines and uranium dressing plant. Associated also with reference to the implementation of radioactive mine or dressing plant.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard. Analyzing and processing GB /statistical processing and interpretation of normal sample outliers T 4883 data

GB/T 6768 Water trace uranium analysis

GB 12379 environmental radiation monitoring provisions

GB 14586 environmental management of decommissioning of uranium mining and milling facilities technical requirements HJ/T

61 Environmental Radiation Monitoring Technical Specification

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 Uranium dressing plant and mine uranium mines, ventilation wells, waste rock, waste

water treatment, ore bin, to leaching field, heap leaching field, ore transfer station, workshops, Covering the range of tailings (residue) library and other facilities covered.

3.2 In the form of gases, aerosols, dust or liquids into the environment of radioactive material URANIUM practice source caused by the generally lower status It can be diluted and dispersed in the environment, such as gaseous radon and radon, aerosols, liquid uranium, radium and so on.

3.3 Before the facility, run, and during normal operation, radiation levels in the environment and natural radionuclides in environmental media activity concentrated Of regular monitoring carried out.

3.4 In case of an accident, radioactive contamination of the environment to identify health and radiation levels were monitored.

4 Surface Water

Outfall downstream of the first water point; downstream of the main settlements; Control Point 1/half year Natural U, 226Ra, 210Po, 210Pb Total alpha, total beta; pH value; toxic Harmful substances such as Cd, As, Mn, etc.

4.1 Monitoring purposes and requirements

4.1.1 monitoring purposes Timely understand and master the environmental pollution situation and pollution trends; Analyzing comparison with the control point source pollution and risk may cause Harm; accumulated monitoring data provide the basis for environmental management.

4.1.2 Monitoring Requirements

a) monitoring the content should be determined according to the characteristics of the project, the type of monitoring, and evaluation of three key environmental characteristics;

b) monitoring program should be carried out to optimize the design, with the accumulated experience, and constantly improve the monitoring program; Using a predetermined standard methods

c) Sample collection, pretreatment and monitoring methods;

d) based on the engineering characteristics, type of contaminant, the degree of pollution and environmental quality conditions and other factors, a targeted selection of a non-radioactive substance Quality monitoring, such as heavy metals, toxic and hazardous chemical substances.

4.1.3 Monitoring type

a) The background investigation;

b) environmental monitoring;

c) emergency monitoring;

d) decommissioning monitoring.

4.2 Monitoring Sites and scope

4.2.1 Monitoring Sites 4.2.1.1 gamma radiation air dose rate Monitoring Sites Border outside the main settlements

a) MINE laid monitoring points;

b) the air sampling point at the same time laid gamma radiation air dose rate monitoring points;

c) tailings (residue) libraries, waste rock, ore bin, heap leaching field, plant (field) boundary sites, transfer stations and other potentially contaminated local distribution;

d) transport laid mines along the highway monitoring points, easily spill area will increase the monitoring point.

4.2.1.2 Air samples Monitoring Sites

a) distribution point to consider. wind direction, wind frequency and other weather conditions; factories and mines near the boundary downwind of pollution sources; persons residing outside the factories and mines around the area Or often a place to stay; the concentration of air pollutants is expected to fall at the maximum;

b) air samples distribution according to the specific circumstances of the region factories and mines MINE size, topographical features, determine the sampling point distribution facilities;

c) the position of the control point should choose to leave the impact of pollutants from factories, mines;

d) monitoring the area around the point should open flat, away from trees and buildings (structures).

4.2.1.3 Surface water samples Monitoring Sites

a) Surface water distribution should be selected on the outer surface boundary MINE potentially contaminated water and river water;

b) the sampling tap in rivers downstream of the discharge port residential water points, irrigation intake and economic aquatic products, fish breeding and public swimming Places, etc.;

c) the density of surface water samples sampling points according to changes in water