

**TAIL STORAGE MANAGEMENT - KYRGYZ
REPUBLIC LEGISLATION**
Preparation for the application of the tailings hazard
index in Kyrgyzstan

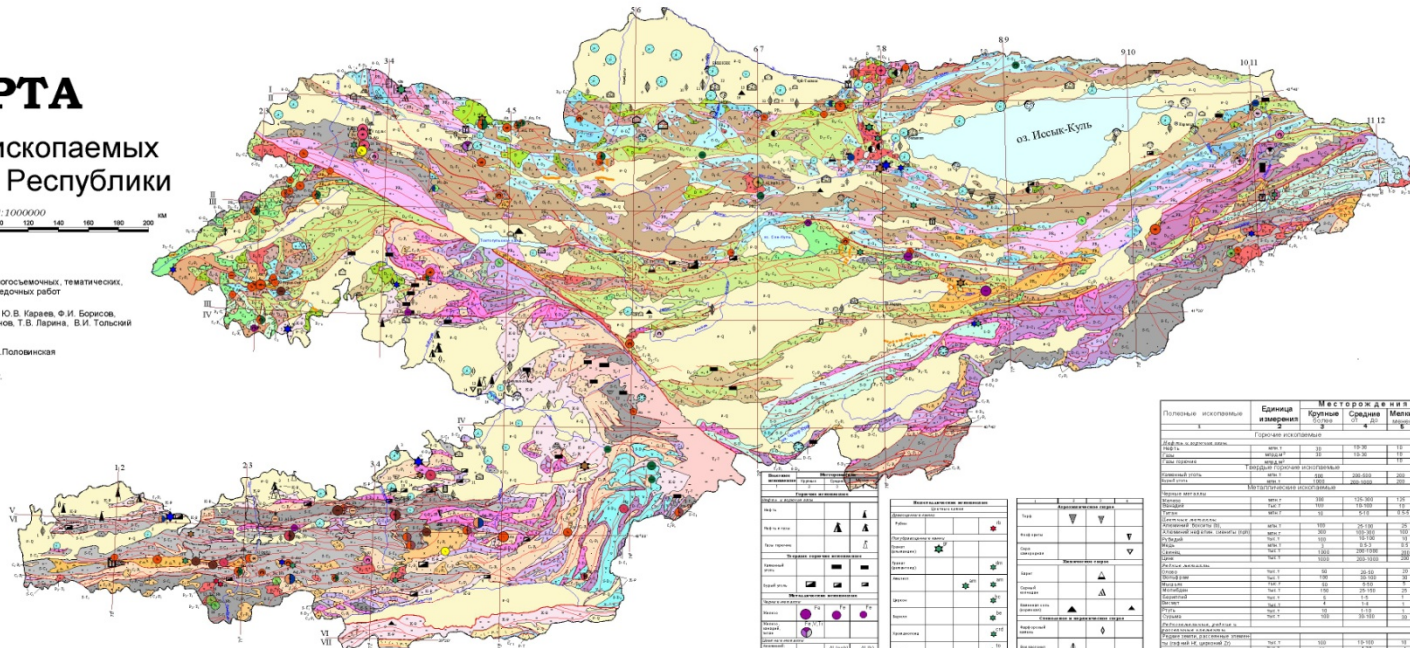
**State Committee for Industry, Energy and Subsoil Use of the Kyrgyz
Republic**

**Industrial Safety Regulatory Office
Sadabaeva Ch.O. - chief specialist**

КАРТА полезных ископаемых Кыргызской Республики

Масштаб 1:1000000

Составлена по материалам геологических, тематических, геологических и геологоразведочных работ
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Т.С. Замлетдинов, Т.В. Ларина, В.И. Толстой
Компьютерный вариант: Т.Э. Ногвев, Н.А. Половинская
2000 г.



Условные обозначения

Геологические комплексы мезо - кайнозой

Геологические комплексы палеозоя и протерозоя

Складчатая система Северного Тянь-Шаня

Складчатая система Среднего Тянь-Шаня

Складчатая система Южного Тянь-Шаня

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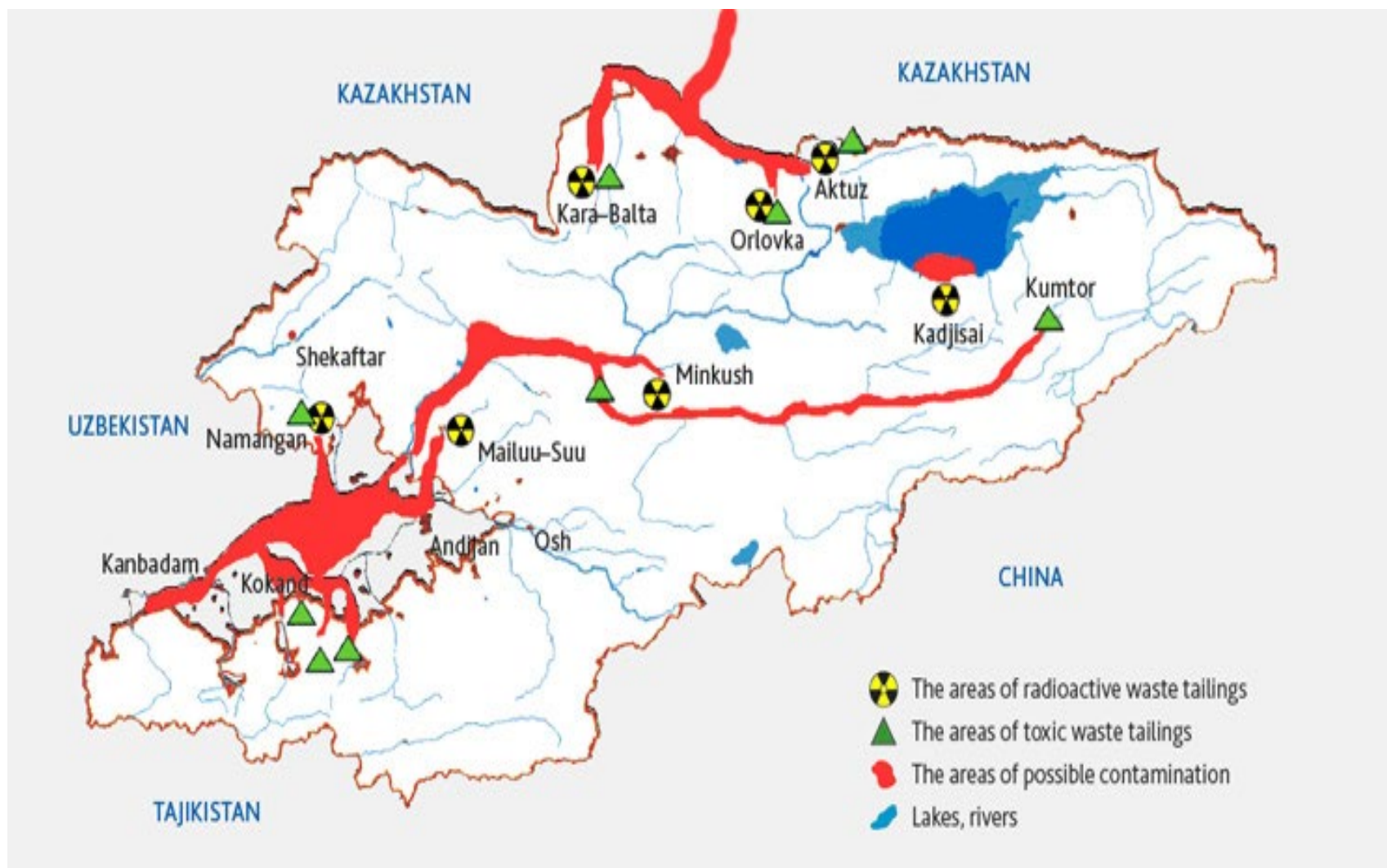
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Интрузивные образования





In accordance with part 5 of Article 12 of the Constitution of the Kyrgyz Republic, land, its subsoil and other natural resources are the exclusive property of the Kyrgyz Republic, are used to maintain a unified ecological system as the basis of life and activities and activities of the people of Kyrgyzstan and are under special state protection.

At the present stage, solving the problem of ensuring the rational use and protection of the subsoil is one of the priority areas for the development of the Kyrgyz economy. At the same time, ensuring security in the field of subsurface use is due to the presence of risks and threats that impede the attraction of investments for the sector in question.



More than half of the territory of Kyrgyzstan is located at an altitude of more than 2500 m above sea level, and only 1/8 of the country is located below 1500 m above sea level. Almost 4% (8 thousand km²) of the territory of Kyrgyzstan is occupied by glaciers, which accumulate up to 650 billion m³ of fresh water.

The bowels of the mountains of Kyrgyzstan contain deposits of various minerals, the development of which makes a significant contribution to economic development. The share of gold mining alone in the country's GDP is about 11%, 40% in industrial production and 48% in export.



7 gold deposits (indigenous) are being developed - Kumtor, Makmal, Salton-Sary, Taldybulak Levoberezhny, Terekkan, Ishtamberdy, Dzhamgyr, Karakazyk.

The following fields were prepared for development: Kuru-Tegerek Andash, Mironovskoye, Shambesai, Kumbel, Terek, Unkurtash, Kara-Tyube Terek (Dalniy site), Chaarat (Tulkubash site), Solton-Sary (Buchuk site), Altyn-Dzhilga.

Mines are being built and put into operation, and they include tailings at the following deposits: Jeruy, Bozymchak, Ishtamberdy (tailings extension), Makmal (second tailings).

All mining enterprises are classified as hazardous production facilities, of which tailings ponds - objects for the storage of toxic and radioactive industrial waste, pose the greatest environmental hazard.



Tailings pond, with the exception of the tailings pond Kadzhisay located in the basins of the Naryn, Mailusu, Chu and have a transboundary character. The Kadzhisay tailing dump is located near Issyk-Kul Lake.

Of 36 tailings, 31 contain radioactive waste, including: 28 - with uranium production waste (8.2 million m³); 3 - with the production of polymetals containing thorium. 5 tailings contains waste from the production of non-ferrous metals and toxic chemicals with a total volume of 5.15 million m³.

In the village of Sumsar, in the region of 3 tailings of the previously operating lead-zinc plant, according to the state sanitary and epidemiological surveillance authorities, the excess of cadmium content reached 320 MPC, manganese - 9 MPC.

When designing and laying tailings in the past, no long-term measures were taken to protect facilities from the effects of hazardous natural processes (landslides, floods and mudflows), anti-filter solutions, measures to protect the population (sanitary protection zones, etc.).



Currently, thanks to the Assistance and Assistance Program and participation in the Project to Strengthen Industrial Safety in Central Asia, we have achieved some positive results. We believe that a fairly detailed assessment of the country has been completed on the status of implementation of the requirements of the Convention on the Transboundary Effects of Industrial Accidents:

- establishment of hazardous activities;
- notification of hazardous activities;
- accident prevention;
- preparedness;
- mutual help;
- information for the public and its participation.

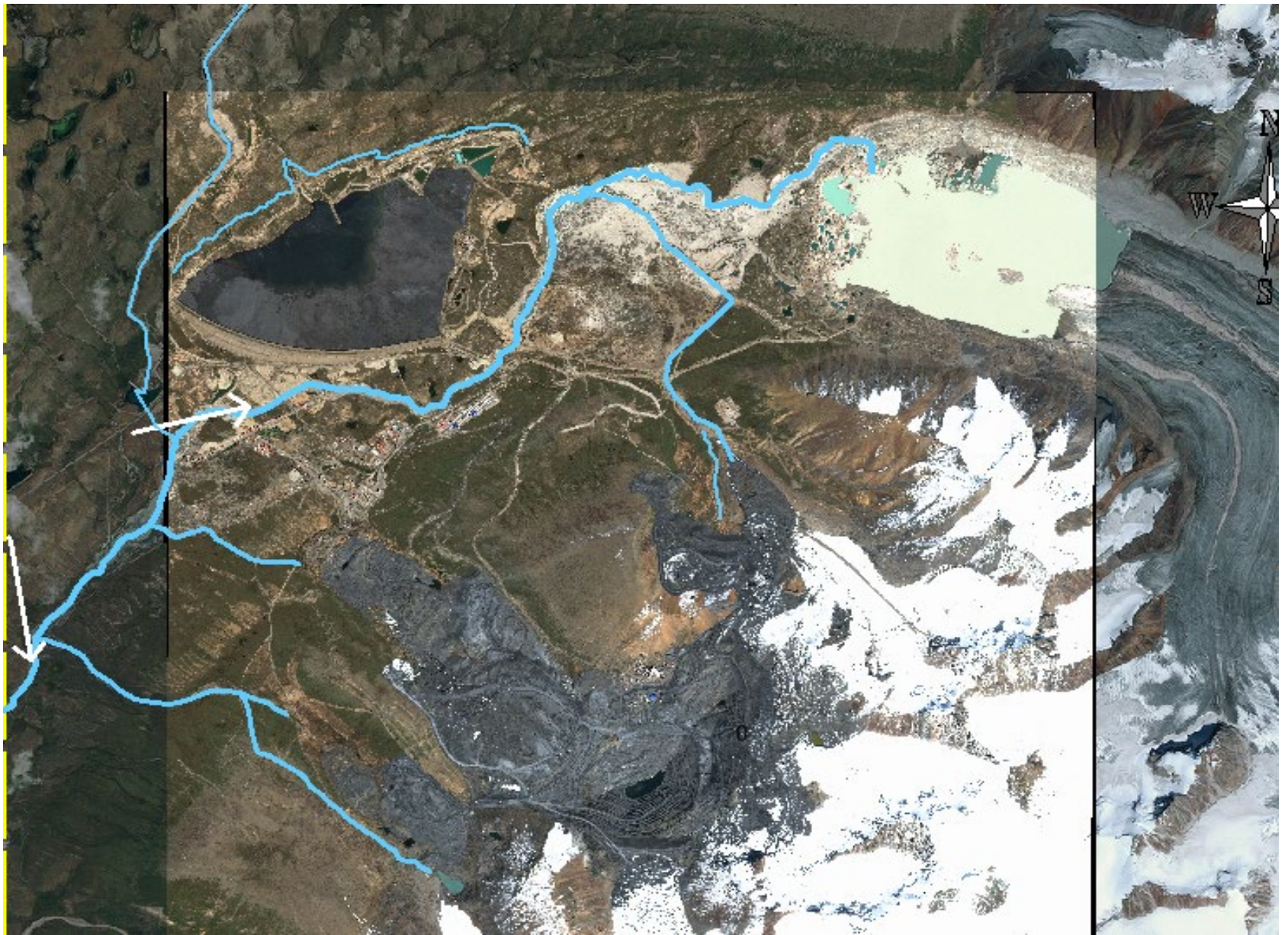
We carry out work in each of the priority areas, not all actions and activities have been completed, but the mechanisms for collecting and reviewing data on hazardous activities are being improved, a government decree has been adopted on registering public education organizations with the creation of a state registry.



As a result, there is currently a high risk of dangerous environmental disasters, which, in addition to the territory of the Kyrgyz Republic, may include areas of the Republic of Kazakhstan, the Tajik Republic and the Republic of Uzbekistan, with a population of up to 5 million people.

The Ministry of Emergency Situations, in accordance with the instructions of the Government of the Kyrgyz Republic, has developed and is currently implementing the Comprehensive Program of Priority Actions for Conducting Rehabilitation Activities at Tailings with Indication of Priority of Implementation. With the assistance of international financial organizations, certain work has already been carried out.

Currently, the Ministry of Emergencies of the Kyrgyz Republic has launched the implementation of the Interstate Program (jointly with the Russian Federation) for tailings in Minkush, Kadzhisay and Shekaftar.







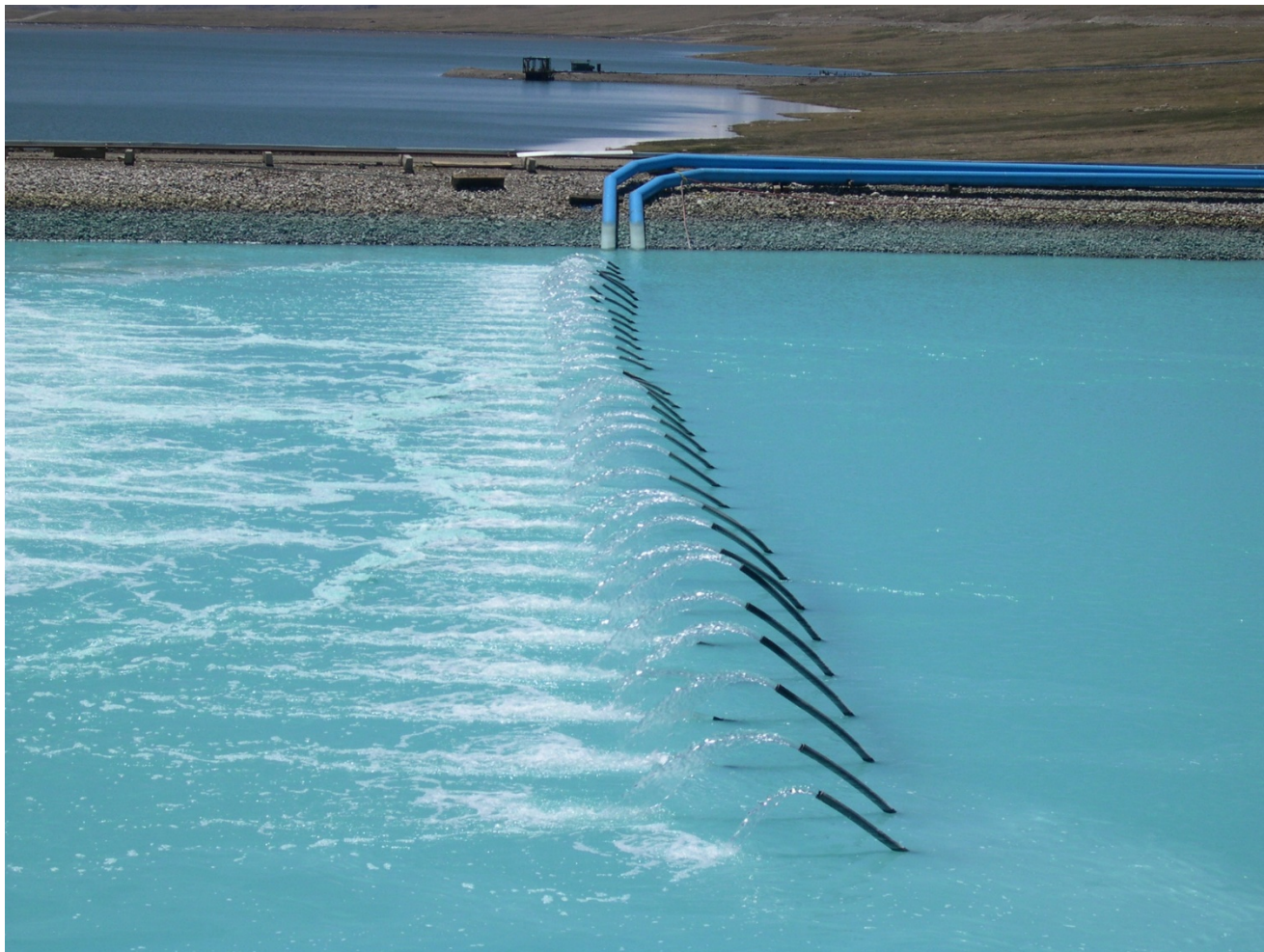






















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Regulatory legal acts, instructive documents regarding design, operation, assessment of the status and safety of tailings

- Law of the Kyrgyz Republic “On Tailings and Mountain Dumps” (2001).
- Law of the Kyrgyz Republic “On industrial safety of hazardous production facilities” (2016).
- Law of the Kyrgyz Republic “On Production and Consumption Wastes” (2001).
- Law of the Kyrgyz Republic “General Technical Regulation for Ensuring Environmental Safety in the Kyrgyz Republic” (2009).
- Water Code of the Kyrgyz Republic, Chapter 10 (2005).
- Safety rules for the operation of tailings, sludge and dump facilities. GKPEN KR (2018).
- BNaR 33-01-2003. Hydrotechnical structures. The main provisions.
- BNaR 2.01-28-85. Disposal and disposal sites for toxic industrial waste. Design Guidelines.

The main regulatory legal acts, instructive documents regarding the design, operation, assessment of the status and safety of tailings

- BNaR 2.06.05-84. Dams from soil materials.
- **RTM 8-54-87.** Norms of technological design of tailings of hydrometallurgical plants and concentration plants.
- **RD 09-391-00.** Methodology for calculating flood zones during hydrodynamic accidents at chemical waste storage facilities.
- RD 03-607-03. Guidelines for calculating the development of hydrodynamic accidents on liquid industrial waste storage devices.
- Also, in the Kyrgyz Republic, actions are currently being taken to implement the Guidelines and good practice for ensuring the operational safety of tailings, developed and recommended by UNECE, in practice.

Law of the Kyrgyz Republic “On tailings and dumps”:

- defines the state policy of the Kyrgyz Republic at all stages of the treatment of tailings and dumps;
- determines the powers of state authorities, local self-government, state administration and state supervision of safety in the field of tailings and mine dumps management, the basic rights and responsibilities of enterprises, institutions, organizations and associations, regardless of their legal forms and forms of ownership in the field of circulation with tailings and mountain dumps;
- provides citizens of the Kyrgyz Republic, public associations with participation in the implementation of state policy in the field of tailings and mountain dumps.
- defines the main directions of international cooperation in the treatment of tailings and dumps.

Sections of the Law of the Kyrgyz Republic “On Tailings and Mountain Dumps”

Section I. General Provisions. Includes article 3, giving interpretations of the terms and definitions used in the law.

Section II. Ensuring safety when handling tailings and dumps. Includes articles on security practices:

- the establishment of a standardized procedure for waste management;
- the implementation of waste transportation by organizations that have the appropriate permit;
- the exception of unauthorized and uncontrolled accumulation of waste in operating organizations;
- ensuring mandatory isolation of tailings and dumps from the human environment;
- the prohibition of the commissioning of operating and specialized organizations in the absence of technical capabilities for handling tailings and dumps;

Sections of the Law of the Kyrgyz Republic “On Tailings and Mountain Dumps”

- prohibition of discharge into natural and artificial reservoirs, into underground aquifers of wastes containing radioactive and toxic substances in any form.
- Article 7 regulates the requirements for storage and disposal of waste:
- only in storage facilities specially designed for these purposes, accepted for use by the state commission in accordance with the developed project;
- while ensuring their reliable isolation;
- with constant monitoring of the status of tailings and dumps.
- The import and burial of radioactive and toxic wastes from other states on the territory of the Kyrgyz Republic is prohibited.

Sections of the Law of the Kyrgyz Republic “On Tailings and Mountain Dumps”

Article 8 regulates the requirements for the territory allotted for the storage and disposal of waste:

- The territory allocated for the storage and disposal of waste is a strict regime zone where any types of economic activity are prohibited.
- The territory allotted for storage and disposal of waste shall be transferred to the jurisdiction of the local state administration or local government only after reclamation that meets the requirements established by regulatory documents.
- Operating and specialized organizations are obliged to provide access to subordinate territories to representatives of specially authorized bodies in the field of tailings and mining dumps and public associations.



It should be noted that the Kyrgyz Republic is a party to the UNECE Convention on Impact Assessment in a Transboundary Context, as well as a party to a number of bilateral and multilateral Agreements in the field of emergency response.

Among them:

- An agreement on the exchange of information on emergencies of a natural and man-made nature, on information interaction during the liquidation of their consequences and assistance to the affected population;
- The decision to create the Reserve Fund of the CIS member states to provide assistance to states affected by natural and man-made emergencies;
- Agreement between the governments of the SCO member states on cooperation in emergency response.



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We carry out work in each of the priority areas, not all actions and activities have been completed, but the mechanisms for collecting and reviewing data on hazardous activities are being improved, a government decree has been adopted on registering public education organizations with the creation of a state registry.



In order to ensure the consolidation of efforts of the state, civil society and business, to take effective and efficient measures aimed at ensuring national security in the field of subsoil use, creating an effective management system for the mining industry, and developing new approaches to the development of this sector of the economy on January 30, 2019 at a meeting of the Security Council of the Kyrgyz Republic it was decided to conduct a complete inventory of all tailings and dumps located in the Kyrgyz Republic, including toxic and other dump tailings minerals.

As part of the implementation of the decisions of the Security Council of the Kyrgyz Republic, held in January 2019, in accordance with the order of the Ministry of Emergencies of the Kyrgyz Republic No. 496 dated 05/05/2019, an interdepartmental commission began to work on an inventory of tailings and dumps located on the territory of the Kyrgyz Republic.



Representatives of the SCESP together with the Ministry of Emergency Situations, GAEP and other interested ministries and departments are currently participating in an inventory of tailings with toxic and radioactive wastes and, based on the results of the inventory, proposals will be formulated on specific necessary measures to increase their safety, including with regard to the prevention of transboundary industrial accidents. When developing such proposals, the SSAC will, wherever possible, take into account the provisions of the Convention on the Transboundary Effects of Industrial Accidents. This also applies to the prevention of accidents and measures to ensure preparedness for them in terms of eliminating their consequences.

So, at the end of May of this year, an inventory of the tailings of KGRK OJSC was carried out with a visit to a place whose activity is related to the enrichment of uranium-containing concentrate.



It should be noted that specialists from Germany and Ukraine, with the assistance of the Convention Secretariat, developed a methodology for improving the safety of tailings. Representatives of the Kyrgyz Republic participated in the events under the UBA project for the safety of tailings in the countries of the Caucasus in 2018.

The Kyrgyz Republic in the person of GKPEN was proposed for consideration the Concept of the project of training in the Kyrgyz Republic on tailings safety based on the checklist, developed by NGOs of Ukraine and Armenia with the participation of international experts, participants of previous projects in Ukraine, Armenia and Georgia.

We express an active interest in the implementation of such a project in our country.

In the case of the implementation of a training project to improve the safety of tailings in Kyrgyzstan by the competent state authorities of the country and, in particular, the SSES, all necessary steps and efforts will be taken to ensure the implementation (sustainability) of the safety improvement methodology and tailings hazard index in the practice of operators tailings, and the corresponding regulatory authorities.



Thanks for attention