



**The Committee for Emergency Response and Civil
Defense under the Government of the Republic of
Tajikistan**

**Sub-regional workshop on tailings safety and
prevention of accidental water pollution in
Central Asia, May 25-26, 2023**

Dushanbe

* In recent years, the mining industry has been actively developing. Foreign direct investments are actively attracted to the industry. At the same time, given a mountainous terrain of the country and locations of mining operations, they are highly susceptible, primarily to mudflow hazards resulting from intense rains, with the likelihood of subsequent pollution of surface waters, including risks of transboundary pollution.

Currently, there are more than 55 million tons of uranium waste accumulated at 10 sites.

The total area of these sites reaches 200 hectares. These **TMFs are located in human settlements and in upstream sections of rivers.**

At the sites, almost no works were made to improve their conditions.

At that time, funds for the decontamination of these territories were not allocated. Of these 10 uranium dumps, Istiklol and Dehmoy dumps were in poor conditions.

TMFs locations map



Information on TMFs locations

Наименование места и название хвостохранилища		Период эксплуатации	Сан. защитная зона, м Площадь, га	Толщина покрытия, м	МЭД на поверхность, мкР/ч	Количество отходов, млн. тонн Кюри
1. Хвостохранилище «Дигмай»	Газиян 1,5 км -	с 1963 г.	400 90,0	-	650-2000	36 4218
2. Хвостохранилище Гафуровское	г. Гафуров, 0,5 км	1945-1950	- 4,0	2,5	20-60	0,4 159
3. Хвостохранилище Карты 1-9	г. Чкаловск	1949-1967	50,0 18,0	0,5	20-60	3,03 779
4. Хвостохранилище (I-II очереди)	г. Табошар,	1945-1959	50,0 24,7	0,7-1,0	40-60	1,69 218
5. Хвостохранилище (III очереди)	г. Табошар, 0,5 км	1947-1963	50,0 11,06	0,7-1,0	40-60	1,8 232
6. Хвостохранилище (IV очереди)	г. Табошар, 1,0 км	1949-1965	50,0 18,76	0,7-1,0	40-60	4,13 510
7. Хвостохранилище цеха №3	г. Табошар, 3,0 км	1949-1965	50,0 2,86	0,7-1,0	40-60	0,117 15,2
8. Отходы фабрики бедных руд (ФБР)	г. Табошар, 4,0 км	1950-1965	- 3,35	-	40-100	2,03 253
9. Хвостохранилище пос. Адрасман	1 км от пос. Адрасман	с 1991г.	- 2,5	1,0	50-60	0,4 160
10. Рудник-3 г. Худжанда	2 км от г. Худжанда	1976-1985	- 5,9	0,5 м	60-80	3,5 11,0

Information on TMFs locations (2)

#	Facility name	Location	
1	JV "Anzob" JSC	Aini district, Soghdi oblast	
2	JV "Zarafshon" JSC	Penjikent city, Soghdi oblast	
3	"Pakrut" JSC	Vahdat RD	
4	"Aprelevka" JSC	Guliston city, Sughdi oblast	
5	"Gorprom" JSC	Guliston city, Sughdi oblast	
6	"Adrasmon" JSC	Guliston city, Sughdi oblast	
7	"S.A.Minerals" JSC	Murgab district, MBAD	

TMF in BUSTON (Chkalovsk)

КАРТА 1-9



Фотография 1



Фотография 2

"Site 1-9" is located at a distance of 1.5 km from the city of Buston.

This TMF was used from 1949 to 1967.

The total area of the TMF reaches 18 hectares, and it contains more than 3 million tons of uranium waste.

The site is covered by neutral fresh soil with thickness of 0.5-0.7 m.



TMFs in KHUJAND

Rocks from Quarry # 3 are located at a distance of 4-5 km from Khujand under Mount Mugulta. These wells were used from 1976 to 1985. The area occupied by rocks reaches 6 hectares and the site contains 0.35 million tons. The dose rate in these areas is 3-4 times higher than the natural background. The waste is covered to the extent possible. Problems of this site are associated with water flowing from the wells, that contains very high levels of uranium.

Natural gamma-radiation background reaches 45 μ R/hour.



TMFs in ISTIKLOL

The uranium mine at Istiklol was one of the largest facilities in the former Soviet Union. It began operating in 1926, and in the period 1949-1965 was actively engaged in mining operations.

Currently, the site remains a large area with an above-ground mining waste storage and uranium ore processing plant, as well as a waste storage facility known as the "Poor Ores Factory". The town of Istiklol, with a population of 12,000, is located at the distance of only 12 km from the site. Taboshar site includes an open-pit mine, that is not completely closed (not mothballed), damaged industrial buildings and three dumps. As a result of operation of two hydrometallurgical plants, a **TMF** for radioactive waste was created with area of 54 hectares, and containing about 7.6 million tons of waste.



Specific impacts (hazards) of the site

- an open area;
- upstream of the rivers;
- lack of covers;
- uncontrolled erosion;
- water erosion;
- radiation, radon, dust spread



B. GAFUROV TMF

The B. Gafurov **TMF** is located in the eastern part of the town of Gafurov.

The TMF area reaches 5 hectares and it contains about 400,000 tons of waste.

The settlement is located at the distance of approximately 50-70 m from the TMF. The site is covered by fresh soil with thickness of about 1 m.

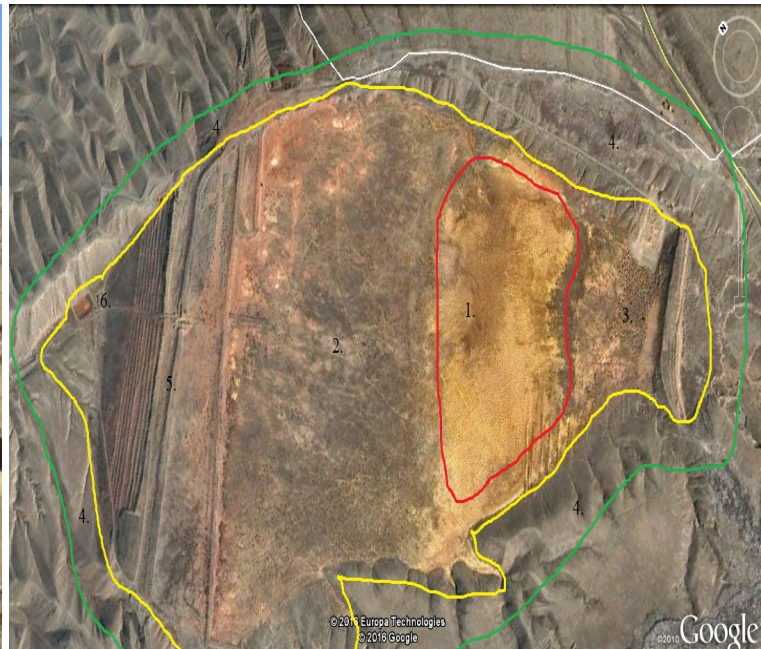


DEGMAY TMFs

The **TMF** is located in the area of B. Gafurov.

The TMF was built between two hills and reinforced by a dam in front. The facility is located at distances of 10 km from the town of Khujand and 1.5 km from the town of Goziyon.

This is the largest uranium waste dump in Central Asia, its area reaches 90 hectares. It contains more than 20 million tons of uranium waste, about 500 thousand tons of non-industrial minerals and 5.7 million tons of vanadium processing waste





In order to ensure safe conditions at radioactive waste storage facilities, Decree No. 505 of the Government of the Republic of Tajikistan of dated 08/01/2014, approved the National Concept of the Republic of Tajikistan for rehabilitation of tailings of uranium ore processing waste for 2014-2024.

Actions stipulated by the Concept

Istiklol TMF (Taboshar):

- recultivation of tailings of Unit No. 3 and the Poor Ores Factory;
- rehabilitation works at tailings of 1st to 4th stages;
- landscaping and greenery planting at the TMF territory to prevent spread of dust and maintain stability of the neutral cover layer;
- organization and implementation of engineering and technical works.

Degmay TMF:

- feasibility studies (design development, geodesy, dosimetry, laboratory research);
- development of rehabilitation projects;
- search for financial sources;
- rehabilitation works.

Order # 35 of the Head of the State Supervision of Safe Work in Industry and Mining Supervision Service under the Government of the Republic of Tajikistan of October 31, 2022, “On Establishment of Interinstitutional Working Group on Tailings Safety and Prevention of Unintentional Pollution of Water Resources”





**Thank you for your
attention!**

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