

Lake Karachay - The Most Polluted Place on Earth

Lake Karachay is definitely not a place to spend your next vacation. Located in the southern Ural Mountains in eastern Russia, it is considered to be the most polluted spot on Earth. For decades the lake was used as a dumping site for radioactive waste. Spending only five minutes at the shore of Lake Karachay is enough to receive a deadly dose of radiation.

The radiation level at the shore of the lake is 600 röntgens per hour, and it accumulates some 4.44 exabecquerels (EBq) of radioactivity. The Chernobyl disaster released 5 to 12 EBq of radioactivity. The radiation from Chernobyl was widely distributed while Lake Karachay concentrates the entire radioactivity in a single location, thus making it more deadly.

History

During the 1950s, the Soviet Union started using the lake to dump waste from Mayak, a nearby nuclear waste storage and reprocessing facility. Mayak was built in 1945-48, in a great hurry and in total secrecy, as part of the Soviet Union's nuclear weapon program. Vast quantities of radioactively contaminated lakes and rivers near the plant. Working conditions at Mayak resulted in severe health hazards and many accidents, including a major explosion on September 29, 1957.

During the 1960s, the lake began to dry out and the wind carried radioactive dust away, irradiating half a million people with 185 petabecquerels of radiation, which is comparable to the effect of the atomic bomb dropped on Hiroshima. Consequently, the lake was filled with concrete from 1978 to 1986.

It is not yet known if it will ever become possible to clean the contaminated area. Some experts even fear that the radioactivity could be lead to the Techa River and then to the Arctic Ocean.



**Lake Karachay, Russia
Filled with concrete**