

# Nuclear disaster at Mayak in 1957

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## **Note**

In this document the references are coded by Q-numbers (e.g. Q6). Each reference has a unique number in this coding system, which is consistently used throughout all publications by the author. In the list at the back of the document the references are sorted by Q-number. The resulting sequence is not necessarily the same order in which the references appear in the text.

## Mayak (Kyshtym)

The disaster at Mayak, also known as the Kyshtym disaster, has been kept secret for decades and is still being concealed, details are scarce. A quote from [Greenpeace 2007a] Q721 reads:

The Mayak nuclear plant in the Southern Urals was one of the dark secrets of the cold war. It was the Soviet Union's primary nuclear complex, a massive set of plutonium production reactors, fuel production facilities, and reprocessing and waste storage buildings.

In 1957 a storage tank with highly radioactive liquid waste exploded. More than half the amount of radioactive waste released by the accident in Chernobyl was blasted into the atmosphere. A few villagers were evacuated, but most were not. 217 towns and at least 272,000 people were exposed to chronic levels of radiation. The plume was 50 kilometers wide and 1,000 kilometers long.

But the explosion wasn't the only incident of contamination. Between 1948 and 1956 radioactive waste was poured straight into the Techa River, the source of drinking water for many villages. It exposed 124,000 people to medium and high levels of radiation. Nuclear waste was also dumped into the lakes of West Siberia, where storms blew nuclear dust across a vast area around the lake.

Greenpeace Russia published a detailed report on the nuclear complex at Mayak and the disaster in 1957 and the ongoing contamination of the regio [Greenpeace 2007b] Q722.

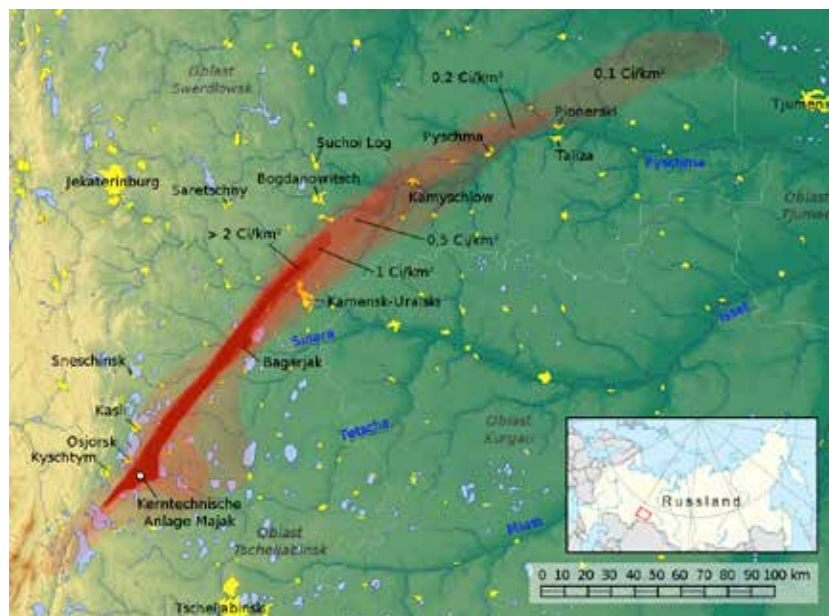


Figure 1

Map of the East-Urals Radioactive Trace (EURT), the area contaminated by the explosion of a tank with high-level radioactive waste at the Mayak nuclear complex near the town Kyshtym on 29 September 1957. Source: [Kyshtym 2015] Q642. It is unclear whether this map is the result of a model calculation or is based on measurements. The present extent of the contamination is not known. Little data are published on the consequences for the population in the affected area.

Little is known about the consequences of disaster at Mayak in the East Urals in 1957 [Kyshtym 2015] Q642. The few available reports point to consequences comparable to Chernobyl and Fukushima.

## References

Q642

Kyshtym 2015

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