

## Mayak - Russia's death factory

Mayak, in Russia's Ural Mountains, is the largest nuclear complex in the world. Its history is one of nuclear disasters, environmental contamination, and public health scandals:

- From 1949 to 1956 Mayak tipped high-level liquid radioactive waste from reprocessing plants straight into the Techa River. Over 124,000 people living in settlements along the river, the main source of their drinking water, have received massive radiation doses. When the extent of the contamination was realised, around 7,500 villagers were evacuated. Too late: 8,000 people have died as a result of this deliberate contamination.
- In September 1957 the second largest nuclear accident in history (after Chernobyl) took place at Mayak. A steel storage tank containing 300m<sup>3</sup> of high-level radioactive waste exploded spreading 74,000 TBq of radioactivity over an area of 23,000 sq km, and affecting 272,000 people. Some 10,200 were evacuated.
- In 1967 Lake Karachay, which contains large quantities of liquid radioactive wastes, dried up due to low rainfall. As a result, radioactive dust blown over 2,700 sq km, affecting 41,500 people.

All three catastrophes, and other serious accidents and incidents, were kept secret by the Soviet government. Details were only released under Gorbachev's policy of "glasnost" in the late 1980s.

The Soviet nuclear program was initiated by Josef Stalin following the American "success" in Hiroshima and Nagasaki. Mayak was an early and key part of the program. The construction of the "Mayak Chemical Combine" began in November 1945. By June 1948 the first nuclear reactor for plutonium production began operation at Mayak, and in August 1949 the first Soviet nuclear bomb was detonated - with plutonium produced at Mayak - in time for Stalin's 70<sup>th</sup> birthday. Ever since, Mayak has been the key Soviet and Russian facility for the production of weapons plutonium and reprocessing of spent nuclear fuel.

Mayak is on the Asian side of the Urals some 1,400 km East of Moscow. Although all five plutonium production reactors were closed in 1991, and the construction of a fast breeder reactor near Mayak has been halted, it remains Russia's most important nuclear site. The plant RT-1 is still reprocessing spent nuclear fuel from VVER-440 reactors as well as from fast breeder reactors, nuclear submarines and icebreakers.

In addition to reprocessing facilities, Mayak has a nuclear waste treatment plant with interim storage and pilot facilities for the production of Mixed Oxide (MOX) fuel and a facility for the vitrification of liquid radioactive waste. A US financed facility for dismantling nuclear warheads is currently under construction at the site and a new plant for production of plutonium based MOX fuel is being planned.

Mayak is also at the heart of Russia's growing radioactive waste management crisis. According to a Russian Atomic Energy Ministry report, approved by the government this year: "Storage of irradiated fuel in Russia is quickly becoming a real challenge: considering the increasing quantities unloaded from decommissioned power, transport (in particular submarines) and research reactors, the existing storage facilities maybe expected to be full by the year 2007. Besides, it should be taken into account that the currently employed procedure of fuel storage in water for several decades is not entirely consistent with safety requirements and that the fuel reprocessing facility which has been in operation at the IA "Mayak" since 1977, is in need of upgrades"

Spent fuel transports to Mayak contribute to the ongoing operation of this polluting and dangerous facility. All spent fuel transports must stop immediately and the Mayak facility should be decommissioned.

---

For more information:

Tobias Münchmeyer, Greenpeace International nuclear campaigner

Tel: +49 30 440 58 960, e-mail: [tobias.muenchmeyer@ams.greenpeace.org](mailto:tobias.muenchmeyer@ams.greenpeace.org)

Mike Townsley, Greenpeace International nuclear campaigner

Tel: +31 62 129 6918, e-mail: [mike.townsley@ams.greenpeace.org](mailto:mike.townsley@ams.greenpeace.org)