

WHAT IS CAUSING THE ENVIRONMENTAL DAMAGE IN TALVIVAARA?

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The environmental problems of the Talvivaara mine are difficult to summarize briefly. They are systemic, and made worse by the actions of the authorities (in this case the Kainuu ELY Center, in charge of monitoring the mine). The Talvivaara mine has caused excessive environmental damage; the ELY Center has repeatedly approved this damage; whenever challenged in court, its decisions have been found to be invalid. However, these court rulings come almost a year after the fact, and are irrelevant because Talvivaara has done so much more ELY-approved damage in the meantime. The system has become a monster.

In practice Talvivaara has never achieved a “normal” mode of operation. All of the wastewater treatment has happened in violation of the original environmental permit, issued in 2007. This has created chronic problems, which has led to a loop of repeated and uncontrollable acute problems. The ELY Center is actively collaborating in the damage by refusing to sanction the mine in any meaningful way.

The mine started with the premise of a closed water circuit, in which a water-purification plant ensures that no wastewater is emitted into the environment. Such a plant was already a requirement in the environmental permit in 2007. As of 2013, Talvivaara has no plant, and is emitting 1.3 million cubic meters of wastewater per year. Instead of purification, the wastewater is neutralized by adding lime to the acidic water, and precipitating some of the toxic metals in a gypsum pond. This creates sulphate salts. The salt water is then diverted into ponds and rivers. The sulphates have already permanently contaminated several small lakes near the mine, and are proceeding downstream toward larger bodies of water.

The Vaasa Administrative Court of Finland made two significant rulings against the Kainuu ELY Center last week. In early 2012, the ELY Center decided that despite the environmental damage the mine was chronically causing, there was no need to shut it down. The Administrative Court has now ruled that the damage was significant, and extreme measures

should have been considered.

In June 2012, Talvivaara invoked a “state of emergency” under Article 62 of the Environmental Protection Act, which allows permits to be temporarily bypassed in case of a natural catastrophe. Talvivaara then diverted its wastewater past the gypsum pond, bypassing a crucial step in the cleaning process. The ELY Center approved the diversion. The Administrative Court has now ruled that in fact there was no state of emergency.

In both cases, the Administrative Court invalidated the decisions of the ELY Center. Unfortunately, this shows a fundamental breakdown in the system: coming almost a year after the fact, these rulings are essentially irrelevant. The damage that the ELY Center helped to create can no longer be undone, since so much new damage has been done in the meantime.

There have been four further states of emergency (August 2012, November 2012, January 2013, and February 2013). Most seriously, there was a massive leak in the gypsum pond in November, which has made the pond unusable (it also leaked in 2008 and 2010). It appears that Talvivaara illegally diverted one million cubic meters of highly polluted and acidic metal raffinate into the gypsum pond, contributing to the leak. The authorities are investigating this.

It has also emerged that Talvivaara has no water-management plan, which was a key requirement in the 2007 environmental permit. Talvivaara has blamed rainy weather in 2012 for its problems; however, rainfall was never considered in the design and risk analysis of the mine. There also seem to be fundamental problems in the bioleaching process, according to an external report.

Company management has stated that the situation is almost under control. However, the same message has been repeated since the mine began operations, and Talvivaara has a track record of unreliable statements about its water management.

Even more worryingly, the mine now plans to almost triple its operations, and to begin extracting uranium from the ore. (The presence of uranium has been known since the 1960's, but was conveniently forgotten by Talvivaara and the authorities in order to avoid public backlash when the mine was started). Based on the past track record of the company, this sounds like a recipe for disaster.