

# ALAVERDI'S ARSENIC 'GRAVEYARD'--THREAT TO RESIDENTS, ENVIRONMENT

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✘ By Larisa Paremuzyan, [Hetq](#), 30 November 2009

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It turns out there were chemical products in the sealed drums. We learnt from Nikolai Feofanov, the ACP's Director of Production, that the drums contained products from the firm's copper smelter that no longer had any production value. "Hetq" first raised the alarm regarding the toxic dump in a January 26, 2009 article entitled, "They've also Buried Chemical Waste in the Alaverdi "Arsenic Graveyard". It seems that after the news about the unguarded site got out, the company fenced off the area. We went back to the "graveyard" on November 18 for a follow-up to the original story. Mr. Feofanov pulled out all the stops to convince us that the buried metallic wastes posed no danger whatsoever to nearby residents or the surrounding environment. To prove that his claims were correct he even went so far to tell us, "Don't you remember that during the Soviet-era Director Norik actually ingested some of the arsenic waste and nothing at all happened to him."

The ACP Production Director also assured us that the buried drums of waste also posed no danger. "All they contain are metallic dust. What harm can ordinary metallic dust cause to anyone?" he ✘ said. Given that Mr. Feofanov received us in a rather off-hand manner, as if to say "Don't poke your nose where it doesn't belong", we thought it best not to ask why then was the dust sealed in special metal drums and then buried? Why go to all that trouble just to get rid of some harmless dust?

"Look here. You people from "Hetq" came and wrote that the site wasn't fenced off. We understood that was the correct thing to do, so we erected a fence. As regards the alleged toxicity of the dump, all I can say is that up till now no damage to the surrounding environment has been registered. Everything is quite normal," Nikolai Feofanov asserted.

When we recently visited the site, we noticed that the base supports for the fence had already started to erode and that large crevices had appeared on the surface. "How do you know that the cement reinforced wall is eroding at the base? The supports are under the ground?" Mr. Feofanov answered our question with a few of his own. It thus appears that rain runoff is carrying off the arsenic and other toxic particles down from the site and, mixing with water flowing down in the canyon below, finally joins the Debed River downstream.

We conversed with Martun Azatyan, a renowned builder in Alaverdi who was one of the managers of the "Akhtalshin", a company that participated in the construction of the "graveyard" at the time. "I only carried out the leveling of the surface for the arsenic "graveyard", but I don't believe that the reinforced concrete walls could have eroded within the given time. It's another matter all together that during the 'cold and dark days' just after independence, there were attempts to demolish the walls by some who believed that the site contained traces of gold. I remember that at the time the police put a stop to the attempted pilferage. However, the walls definitely could have eroded due to the corrosive effects of the arsenic if the containment system wasn't built correctly." There is no guarantee that the arsenic containment system was correctly built back during the Soviet era.

During our previous visit to the site we spoke to local residents about the huge crevices in the ground that had appeared. Shurik and Laura Kirakosyan, who live close to the site, stated, "It's possible that people dug there or that the crevices were made by animals digging. A few years ago you would have seen a lot of people on the site. People came from all regions of Armenia here by car to take away the tailings. They were under the impression that the tailings buried here contained gold and they took the stuff away in sacks to look for gold. They even disassembled the reinforcements of the cement wall enclosures and carted them off."

✘ The "Geo Alaverdi: Environment and Urban Development" report, defined the situation in Alaverdi as an ecological disaster. The report analyzing the socio-economic and ecological state in Alaverdi, states, "Particular attention must be paid to those waste collection sites where untreated mining wastes are buried. For example, The Alaverdi arsenic waste graveyard, situated on the northern bank of the Lalvar River, is in a poor state. Before being buried, the wastes had been previously treated with limewater and recently with the use of sulfides. However, the upper level of the graveyard is covered with oxidized materials and is a potential source for dangerous runoff. The entire zone lies on an active seismic faultline and this poses a serious pollution threat. Plans to hermetically seal-off the graveyard must be drawn up."

Alaverdi Mayor Artur Nalbandyan recently stated that there are plans to build the town garbage dump on a site adjacent to the graveyard in 2010. We believe that more study of the plan is required before any such construction begins.

According to the expert – Arsenic toxicity is a global health problem affecting many millions of people. Contamination is caused by arsenic from natural geological sources leaching into aquifers,

contaminating drinking water and may also occur from mining and other industrial processes. Arsenic is present as a contaminant in many traditional remedies. Arsenic trioxide is now used to treat acute promyelocytic leukemia. Absorption occurs predominantly from ingestion from the small intestine, though minimal absorption occurs from skin contact and inhalation. Arsenic exerts its toxicity by inactivating up to 200 enzymes, especially those involved in cellular energy pathways and DNA synthesis and repair. Acute arsenic poisoning is associated initially with nausea, vomiting, abdominal pain, and severe diarrhea. Encephalopathy and peripheral neuropathy are reported. Chronic arsenic toxicity results in multisystem disease. Arsenic is a well documented human carcinogen affecting numerous organs. There are no evidence based treatment regimens to treat chronic arsenic poisoning but antioxidants have been advocated, though benefit is not proven. (U.S. National Library of Medicine, National Institutes of Health)

After a half-hour at site, I started to feel dizzy

After spending just a half hour at the Alaverdi arsenic graveyard, I started to feel weak kneed; my head hurt and I felt nauseous. All the while, Nikolai Feofanov assured us that his father worked in the factory for fifty years and had no health issues connected with the manufacturing process. "I'm past 60 and just look at me. I've worked in the factory for many years myself and, thank God, I'm healthy. Nothing serious medically speaking."

While we certainly wish Nikolai Feofanov continued good health in the future, we deem it appropriate to remind him of Ilibkhan Maranyan and Vahan Veranyan, two production line chiefs at the plant, who died from malignant tumors and at an early age. Then too, there are the many unidentified plant workers who died from similar causes.

To date, there has been no serious study in Alaverdi of the medical and environmental impact that local industrial waste and toxic exhausts have had on both residents and their surroundings. This is all the more amazing since the need for such analysis has long been required. It would seem the government is not interested in and has no need of knowing what really is going on in Alaverdi.

