
Copper Controversy Haunts Armenian Town

By Marianna Grigoryan
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An increase in birth defects in the northern Armenian town of Alaverdi has prompted a debate about the operations of one of the town's largest employers, the Armenian Copper Program.

Located about 170 kilometers north of Yerevan inside a steep mountain gorge, Alaverdi, with a population of about 22,000 people, could pass as a poster town for post-Soviet industrial decline. Emissions from a 100-meter-tall smokestack connected to the town's copper-smelting plant often shrouds the town's rusting and ruined buildings, creating a ghostly effect.

Established more than 200 years ago, the Alaverdi plant was once one of the largest copper production facilities in the former Soviet Union, with an annual output of 55,000 tons of copper.

That situation changed in 1988-1989, when the disintegration of the Soviet Union and a growing Armenian environmental activism campaign prompted the plant's closure. The Alaverdi plant was totally plundered and expensive filters that synthesized emissions were sold on the cheap. The town was left "an environmental disaster area," in the words of Larisa Paremuzian, who served as Alaverdi's mayor from 1989 to 1991.

In 1996, the plant finally reopened, under the management of the Armenian Copper Program, a company whose majority shareholder is the Lichtenstein-registered Valex F.M. Establishment Company.

But it operated without filters and emissions of hazardous materials began to soar. At the time of Alaverdi's closure, its emissions of sulfuric anhydride -- a hazardous compound formed when sulfur-containing copper concentrate is put into production - exceeded allowed norms by 7.2 times. By comparison, during the first ten months of 2007 and in 2006, the plant released into the atmosphere 20 times more sulfuric anhydride than is permitted under state regulations, according to data compiled by the Ministry of Environmental Protection.

In 2006, the government states, the plant also released into the atmosphere 12 tons of arsenic, nearly 105 tons of dust, 41 tons of zinc, and nearly 3 tons of lead, and 3 tons of copper, among other hazardous elements.

It is a track record that raises official eyebrows, but has not yet prompted a crackdown. "We have all the reasons for stopping the plant's operations," Marzpet Kamalian, deputy head of the Environment Ministry's State Inspections Department, told EurasiaNet. "However, authorities do not let us do that, as there is a state policy that the economy should develop. We could either shut down the plant's operations, or allow the emissions to happen, and we chose the second option."

Meanwhile, the Ministry of Health and local hospitals state that the Alaverdi area is experiencing an alarming frequency of birth defects in newborns.

In 1992, when Alaverdi was not operating, the town did not record any case of "natural birth deviations, development defects, deformations and chromosomal disorders." By 2004, four years after resumption of copper smelting, the incident rate had increased to 107, from 28 in 2001. Health ministry

officials say that they are still completing the statistics for more recent years.

Doctors at the maternity hospital in Alaverdi say that they have dealt with anencephalia -- "a missing brain" -- many times in the last decade. Hydrocephalia (an excessive amount of water in the brain), spinal hernias, two-headed fetuses and other defects have also occurred, said maternity hospital director Amalia Azatian.

Such defects can be caused by genetics, as well as hazardous pollutants, noted Azatian, who declined to draw conclusions from the cases.

Respiratory problems -- often associated with high concentrations of sulfur -- have become more frequent, too, more than doubling in recent years. In 2005, the health ministry recorded 121 cases of respiratory diseases among Alaverdi adults; by 2007, that number had reached 295.

Environmental activists are up in arms over Alaverdi, but say that their hands are tied. Union of Greens Chairman Hakob Sanasarian calls the town "a gas chamber."

"It is already about 10 years that the plant has operated without filters and the emitted poisons immediately affect humans," Sanasarian said. "It looks like a conspiracy against man and nature by the government and the plant."

Armenian Copper Program company director Gagik Arzumanian, however, categorically rejects that view.

"We are always looking for and trying to conduct research to find a rational option [to continue operations and to minimize the environmental impact]," Arzumanian said during an October 2007 interview with EurasiaNet.

In the late 1990s, when Alaverdi resumed operations, "our production volumes were not so large as to enable us to install filters," he added. Filter costs -- broadly estimated in the millions of dollars -- are still exorbitant given Alaverdi's output, he claimed. As of 2007, the plant's annual copper production stood at 7,000-8,000 tons, according to company figures -- a sliver of its Soviet-era output.

Government officials do not blame the Alaverdi plant for the birth defect rate, but stress the need for "extensive" investigation into the causes. For now, though, the Health Ministry does not have the "large funding" required for such research, according to Mother and Child Department Head Karine Saribekian.

One toxicologist, however, maintains that there is a direct link between the Alaverdi emissions and recorded birth defects. Emil Babaian is head of the industrial toxicology lab at the General Hygiene and Occupational Diseases Scientific Research Institute in Yerevan and has conducted studies in Alaverdi and other "problematic" Armenian industrial towns.

Annual studies conducted by the institute put Alaverdi kindergartners' cognitive development at "7 to 10 points behind the norm," Babaian said. "And the emitted poisonous elements are greatly at fault for all this."

Armenian Copper Program Director Arzumanian states that he recognizes the extent of the problem. "I agree that the situation in Alaverdi is not auspicious for health. However, I cannot say that the problems exist only because of the plant's emissions. An increase in diseases can be registered in all areas [of Armenia]," he said.

By 2009, Arzumian said, the plant will try to find a solution that will strive to meet both environmental and economic concerns. A government-ordered 10-percent reduction in emissions by January 2008 has not yet taken place, he conceded. An additional 80 percent reduction is slotted for 2009.

Environmental activist Paremuzian says it is unlikely the plant will meet that target. "The situation goes from bad to worse from year to year," she said in an October 2007 interview. "According to previous promises, the filters should have already been installed. However, nothing has been done so far."

State Environmental Inspections Department Deputy Head Marzpet Kamalian stresses that Alaverdi still has until 2009 to bring its operations into compliance with emission regulations.

Despite the current emphasis on economic development, "[i]f it fails to meet the requirements within the period, we will impose strict sanctions on it, such as big fines and even going so far as shutting down the plant," Kamalian said.

Arzumian states that if hefty fines are imposed and filters cannot be purchased, the Alaverdi plant may "temporarily suspend" its work.

"Our activities will not be financially justified," he said. Instead, he said, the company would concentrate on operations at Teghut, thousands of hectares of woodland in the northern Lori region that the Armenian Copper Program intends to clear for mining of large copper reserves.

That threat resonates with Alaverdi residents. The plant employs some 700 people, and is one of the town's largest sources for jobs.

"If the plant is closed, Alaverdi will be turned into a large village," predicted Alaverdi Mayor Artur Nalbandian, adding that consideration is also given to the environmental issues. "[W]e would have to choose the old option [having a job despite environmental pollution] again."

For now, Alaverdi residents say that they are still waiting for a sign of any other option.

Editor's Note: Marianna Grigoryan is a reporter for the Armenianow.com weekly in Yerevan. Karen Minasyan is a photographer based also in Yerevan.
