Ezeiza, Argentina

Nuclear facility

The Ezeiza Atomic Center is located in a suburb of Argentina's capital city Buenos Aires. In recent years, it has been the cause of much concern, as radioactive waste has contaminated the groundwater of adjacent neighborhoods, affecting up to 1.6 million people. Epidemiological studies have not been undertaken; the government and the country's nuclear commission have denied any responsibility.

"Confirmed: There is uranium in the water" a Greenpeace activist states. An increase in the incidence of cancer in the vicinity of the nuclear complex led to an investigation by the health authorities in the year 2000. Due to the discovery of increased concentrations of uranium in groundwater samples, the U.S. Environmental Protection Agency, the University of Buenos Aires and Greenpeace conducted several studies in the five years that followed. Photo credit: Greenpeace/ http://argentina.indymedia.org

2005: Inhabitants of the suburb Esteban Echeverría demand clean drinking water, after local wells were found to be radioactively contaminated. Despite large-scale protests, there have not been any meaningful reactions from the authorities. Photo credit: http://argentina.indymedia.org

The Ezeiza Atomic Center was created in 1951 as a nuclear research facility. Today, it covers roughly 20 acres and includes research reactors, production plants for radioisotopes and nuclear fuel, and a facility for the management and storage of spent fuel and other radioactive waste. Picture: googlemaps.com

History

Argentina has a mid-sized nuclear program with nine uranium mines spread out over several provinces and two nuclear reactors in Buenos Aires and Córdoba. Since 1997, all mines have been closed, but there are plans to reopen the Sierra Pintada mine in Mendoza and the Don Otto mine in Salta. The nuclear program is coordinated by the National Atomic Energy Commission (CNEA), which operates research facilities in Bariloche, Constituyentes and in Ezeiza, a suburb of Buenos Aires.[1] Between 1987 and 1994, Argentina supplied Iran with uranium and other materials needed for a nuclear program, a cooperation that has come under scrutiny as Iran is suspected of turning its civil nuclear program into a military program.[2]

The Ezeiza Atomic Center was created in 1951 as a nuclear research facility. Today, it covers roughly 20 acres and includes research reactors, productions plants for radioisotopes and nuclear fuel, and a facility for the management and storage of spent fuel and other radioactive waste. This highly toxic waste is stored in two partly uncovered trenches in the ground.[1,3] It is suspected that recent leaks from these trenches have caused radioactive contamination of groundwater supplies in the area. It would not be the first such incident in Ezeiza. On September 23, 1983, a criticality accident in an experimental test reactor led to the release of fissile material. The operator was exposed to a total of 37 Sv of radiation and died after two days. Seventeen other people were exposed to doses of up to 0.35 Sv.[4]

Health and environmental effects

In the year 2000, several cancer cases near the Ezeiza Atomic Center prompted investigations into possible causes. Subsequently, elevated uranium levels were found in groundwater samples and it was suspected that the uncovered nuclear waste dumps had incurred leaks. In the years 2000 to 2005, several studies were conducted by the U.S. Environmental Protection Agency, the University of Buenos Aires and Greenpeace in the districts of Ezeiza, Esteban Echeverría and La Matanza. Together, these three neighborhoods cover more than 6,000 acres and are home to more than 1.6 million people. Of the 46 wells that were surveyed, 74 % contained water found to be unsafe for human consumption. Uranium levels were elevated up to 34.5 mg/l – more than twice the permissible maximum level of 15 mg/l set by the WHO.[5,6,7]

The legal battle that followed resulted in a thorough investigation and, in 2005, a court order to remove all radioactive waste deposited in the uncovered sector of the trench system.[1] The CNEA in charge of the Ezeiza Atomic Center tried to justify the leak by stating in its official report that the trenches had been built in the 1960s, when "different climate conditions" were prevalent.[1] Additionally, they argued that the permissible uranium level in Argentina had been fixed at 100 mg/l, so that the increased uranium levels in the groundwater were still well within national guidelines.[1] They did not state, however, that the CNEA itself was mainly responsible for determining this guideline, or that it exceeds the level thought by the WHO to be acceptable for drinking water by a factor of 6.

Outlook

Information about uranium pollution near the Ezeiza Atomic Center is still mostly classified as confidential in order to avoid a scandal. The government is failing in its duty to protect the public from radioactive contamination and not even large-scale demonstrations by inhabitants demanding clean drinking water have led to a meaningful response from the authorities.

There has not been a formal investigation of radiation-associated diseases in the affected area, despite numerous reports about increased numbers of cancer cases. Also, no epidemiological studies were ever performed on the affected population. Independent epidemiological research is needed, as is a transparent public debate about the potential health effects of nuclear energy and new national guidelines for the permissible levels of radioactive substances in food and drinking water. The people of Buenos Aires do not want to become Hibakusha.

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66-70 Union Square, #204 Somerville, MA 02143 USA
ippnwbos@ippnw.org I www.ippnw.org
Legally responsible for content: Dr. Alex Rosen