

The 1979 Anthrax Leak

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The anthrax epidemic which occurred in the city of Sverdlovsk during 1979 was the first incident which gave rise to suspicions concerning the possibility of an ongoing biological weapons program in violation of the 1972 Biological Weapons Convention in the Soviet Union.¹ This incident resulted, according to different accounts, in the deaths of between 64 to 300 people who lived and worked in the area surrounding the 19th Military Compound, where the biological warfare facility which stored the anthrax was located.² The first public confrontation about the epidemic took place in March 1980, when the U.S. addressed the Soviet Union on suspicions on violating the 1972 Biological Weapons Convention. It followed the publication of reports on the existence of the military base near the city, and doubts on whether it was testing “anthrax vaccines with lethal aerosols” or, instead, engaged in “the illegal development of biological weapons.”³

The Soviet response to this allegation was clear: the outbreak was due to a public health failure caused by animal feed infected with anthrax spores, which in turn provoked the outbreak of this epidemic through tainted meat.⁴ This response was expanded in September 1986, when the Soviet Ministry of Health claimed the infection was attributed to remains of anthrax-infected cattle being reduced to bone meal from a slaughterhouse in March 1979, with cases occurring between the 4th of April and the 18th of May.⁵ Further stating that “topsoil had been scraped away where infected animals had been found ... been buried, and, following that, decontamination was carried out by special teams using liquid disinfectant” in response to the outbreak.⁶

¹ Raymond A Zilinskas, “Biological Warfare and the Third World,” *Politics and the Life Sciences* 9, no. 1 (1990): 63; Milton Leitenberg, “A return to Sverdlovsk: Allegations of Soviet activities related to biological weapons,” *Contemporary Security Policy* 12, no. 2 (1991): 161.

² Leitenberg, “A return to Sverdlovsk,” 163.

³ Jeanne Guillemin, “The 1979 Anthrax Epidemic in the USSR: Applied Science and Political Controversy,” *Proceedings of the American Philosophical Society* 146, no. 1 (2002): 18.

⁴ Guillemin, “The 1979 Anthrax Epidemic,” 19; Elisa D. Harris, “Sverdlovsk and Yellow Rain: Two Cases of Soviet Noncompliance?,” *International Security* 11, no. 4 (1987): 46.

⁵ Leitenberg, “A return to Sverdlovsk,” 164.

⁶ *Ibid*, 164-165.

The answering report issued by U.S. authorities rejected this narrative arguing that the accidental release of anthrax had occurred within the Microbiology and Virology Institute in Sverdlovsk City following the explosion of a pressurized system containing dry anthrax spores, which went on to expand through a radius of at least 2.3 miles. This event was followed by partially effective mass immunizations, and largely ineffective disinfection and decontamination procedures.⁷ The spraying of decontaminating solutions from aircraft was, the report argued, not consistent with public health control measures for dealing with anthrax acquired through bad meat. The reported spraying and disinfection around the military facility, rather, were attempts to decontaminate surfaces affected by an infectious aerosol.⁸

By 1991 U.S. authorities still held that the outbreak occurred due to an accidental release of anthrax spores from an illegal biological weapons facility.⁹ A later investigation of the events in 1992 and 1993 later confirmed this, reinforcing U.S. suspicions as to the nature of the outbreak.¹⁰ It revealed half of the allegations made by the U.S. were correct, with the epidemic being caused by an airborne escape of organisms from the military laboratory. This further showed that “previous Soviet government explanations given to the Biological Weapons Convention Review Conference in 1986 and at the US National Academy of Sciences presentation in 1988 were a consciously contrived fraud.”¹¹ This tied it to the then-emerging investigations and suspicions concerning Biopreparat—the Soviet biological weapons programme.

The 1979 anthrax leak at Sverdlovsk stands out, not just as one of the earliest events that pointed at the Soviet Union’s deliberate breach of the Biological Weapons Convention, but also as an event which shows the sheer difficulty involved in the verification of arms control and disarmament treaties. Despite the legal and humanitarian accomplishments of the Biological Weapons Convention, this event—much like the similarly-timed Yellow Rain allegations—arose in an international environment which was quickly shelving with the

⁷ Ibid, 167; Defense Intelligence Agency, *Soviet Biological Warfare Threat*, DIA DST-1610F-057-86 (Washington D.C.: Defense Intelligence Agency, 1986), 4-6.

⁸ Defense Intelligence Agency, *Soviet Biological Warfare Threat*, 4-6.

⁹ See U.S. Government, the White House, Office of the Press Secretary, *Annual Report on Soviet Noncompliance with Arms Control Agreements*, 15 February 1991.

¹⁰ Milton Leitenberg and Raymond A. Zilinskas, *The Soviet Biological Weapons Program, A History*, (Cambridge, Massachusetts and London: Harvard University Press, 2012), 423-445.

¹¹ Leitenberg, “A return to Sverdlovsk,” 178.

complacency of previous years and which, in turn, led to a remarkable crisis of faith on the potential of this convention.¹² The “assumed achievement of the 1970s had been, at least in part, reversed.”¹³

The city of Sverdlovsk had, until then, long been a mystery to Western observers, with those few who knew of its existence viewing it as “a city closed to the West, a center of military and industrial production for the Soviet Union located in the Soviet Urals, straddling the border between Europe and Asia.”¹⁴ The quest to prove the initial suspicions as to the real nature of the outbreak was long and arduous, with experts initially seeming to believe the Soviet version of events.¹⁵ The 1979 Sverdlovsk anthrax leak was, in the end, solved by the testimony of Soviet officials “under the extraordinary circumstances of the dissolution of their country.”¹⁶ Thus, it came to raise important questions as to how to fully verify that state parties to international disarmament and arms control agreements comply with their obligations—a problem which retains immense importance today.



¹² Michael D. Gordin, “The Anthrax Solution: The Sverdlovsk Incident and the Resolution of a Biological Weapons Controversy,” *Journal of the History of Biology* 30 (1997): 441-442.

¹³ Milton Leitenberg, “Biological Weapons, International Sanctions and Proliferation”, *Asian Perspective* 21, no. 3 (1997): 9.

¹⁴ Gordin, “The Anthrax Solution,” 443.

¹⁵ *Ibid*, 459.

¹⁶ Leitenberg, “Biological Weapons,” 30.

Bibliography

- Zilinskas, Raymond A. "Biological Warfare and the Third World." *Politics and the Life Sciences* 9, no. 1 (1990): 59-76.
- Leitenberg, Milton. "A return to Sverdlovsk: Allegations of Soviet activities related to biological weapons". *Contemporary Security Policy* 12, no. 2 (1991): 161-190. DOI: 10.1080/01440389108403950.
- Guillemin, Jeanne. "The 1979 Anthrax Epidemic in the USSR: Applied Science and Political Controversy". *Proceedings of the American Philosophical Society* 146, no. 1 (2002): 18-36.
- Harris, Elisa D. "Sverdlovsk and Yellow Rain: Two Cases of Soviet Noncompliance?" *International Security* 11, no. 4 (Spring, 1987): 41-95.
- Defense Intelligence Agency. *Soviet Biological Warfare Threat*. DIA DST-1610F-057-86. Washington D.C.: Defense Intelligence Agency, 1986.
- U.S. White House. *Annual Report on Soviet Noncompliance with Arms Control Agreements*, 15 February 1991.
- Leitenberg, Milton, and Raymond A. Zilinskas. *The Soviet Biological Weapons Program, A History*. Cambridge, Massachusetts and London: Harvard University Press, 2012.
- Gordin, Michael D. "The Anthrax Solution: The Sverdlovsk Incident and the Resolution of a Biological Weapons Controversy". *Journal of the History of Biology* 30 (1997): 441-480.
- Leitenberg, Milton. "Biological Weapons, International Sanctions and Proliferation", *Asian Perspective* 21, no. 3, Winter 1997, pp.7-39.