

Russian nuclear plant says it emits leaked nuclear isotope

December 13 2017



In this file photo taken on Friday April 8, 2016, a sign warns people not to enter the town of Ozersk, Chelyabinsk region, Russia, which houses the Mayak nuclear facility. Mayak is a nuclear complex that has been responsible for at least two of the country's biggest radioactive accidents. Russian authorities denied Friday that a radioactivity spike in the air over Europe resulted from a nuclear fuel plant leak in the Urals, saying their probe has found no release of radioactivity there. (AP Photo/Katherine Jacobsen, File)

A senior executive at the Russian nuclear processing plant suspected of

being behind a spike of radioactivity over Europe this fall admitted Wednesday that the isotope recorded does emerge as part of the plant's production cycle but said its levels are negligible.

Russian officials last month reported high levels of Ruthenium-106 in areas close to the Mayak nuclear plant in the Ural Mountains.

The environmental group Greenpeace alleged that Mayak could have been the source of a Ruthenium-106 leak, but the plant said it has not extracted the isotope or conducted any other operations that may lead to its release "for many years."

But Yuri Mokrov, adviser to Mayak's director general, said in a webcast press conference Wednesday that Ruthenium-106 routinely emerges during the processing of spent nuclear fuel. Mokrov insisted, however, the plant was not the source of any major leak, saying it does not produce the isotope on purpose and that the emissions that the plant makes are so insignificant "we can only see it in the chimney."

A Russian panel of experts dispatched to investigate the leak has failed to identify where the isotope came from, but alleged that it could have come from a satellite that came down from its orbit and disintegrated in the atmosphere. The commission said last week that a thorough inspection of the Mayak plant and its personnel had found no safety breaches.



In this file photo taken on Thursday, April 7, 2016, an old man fishes in a lake that connects to the nearby Techa River, near the village of Muslyumovo, Chelyabinsk region, Russia, which is polluted with radioactive waste from the Mayak nuclear plant. Mayak is a nuclear complex that has been responsible for at least two of the country's biggest radioactive accidents. Russian authorities denied Friday that a radioactivity spike in the air over Europe resulted from a nuclear fuel plant leak in the Urals, saying their probe has found no release of radioactivity there. (AP Photo/Katherine Jacobsen, File)

"There is Ruthenium in [spent nuclear fuel](#), and Mayak during its activities routinely comes across this isotope," Mokrov said, adding that "actual emissions are hundreds times lower the permitted levels."

Mayak, in Russia's Chelyabinsk region, saw one of the world's worst nuclear accidents on Sept. 29, 1957, when a waste tank exploded. That contaminated 23,000 square kilometers (9,200 square miles) of territory and prompted authorities to evacuate 10,000 residents from neighboring

regions.



Andrei Ivanov of Russia's Rosatom state nuclear corporation speaks during a news conference in Moscow, Russia, on Friday, Dec. 8, 2017. Ivanov said that an inspection of the Mayak plant has proven that it wasn't the source of Ruthenium-106, a radioactive isotope spotted in the air over Europe and Russia in late September and early October. (AP Photo/Ivan Sekretarev)

© 2017 The Associated Press. All rights reserved.

Citation: Russian nuclear plant says it emits leaked nuclear isotope (2017, December 13)
retrieved 25 April 2024 from

<https://phys.org/news/2017-12-russian-nuclear-emits-leaked-isotope.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.