

Was Cat Litter Really The Cause Of The Nuclear Leak?

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ALBUQUERQUE, N.M. (AP) — The investigation into a February radiation release from the federal government's underground nuclear waste dump in southeastern New Mexico has turned to a seemingly unusual suspect: cat litter.

Federal officials have zeroed in on a barrel of waste from Los Alamos National Laboratory as the source of the leak, and one theory is that a change in the type of cat litter that it was packed with caused a leak that contaminated 22 workers with low levels of radiation on Feb. 14, shuttering the Waste Isolation Pilot Plant in Carlsbad, New Mexico, indefinitely.

State environment officials now say more than 500 barrels of waste from decades of nuclear bomb-making at Los Alamos were packed the same way, and they are concerned that the barrels scattered between the underground dump, Los Alamos' northern New Mexico campus and a commercial disposal site in West Texas pose a potentially "imminent and substantial" danger to public health and the environment.

Here are questions and answers about the waste:

WHY WAS CAT LITTER USED IN THE FIRST PLACE?

The cat litter was used to absorb moisture in sealed barrels of nuclear waste at Los Alamos, home to some of the world's finest scientists. Officials have said cat litter has long been used to pack waste because of its absorption and neutralizing qualities. It's commonly used, for example, by people to soak up oil spills in driveways. But Los Alamos switched from nonorganic to organic litter for packing waste in 2013, and the theory is that some kind of chemical reaction occurred between waste containing nitrate salts and the new litter. Officials said they are investigating who made the decision to make the switch and what process was followed.

HOW CAN CAT LITTER POSE SUCH A DANGER?

Investigators have said the litter theory is just one possible cause being explored, but it is being studied seriously enough to prompt New Mexico Environment Secretary Ryan Flynn this week to order Los Alamos and the underground nuclear dump to put together plans for immediately isolating all 500-plus barrels of waste known to contain nitrate salts and organic cat litter. Based on evidence from crews that have been down in the mine since the release, a barrel of waste from Los Alamos experienced some type of "heat event" that burned the exterior and popped the waste container's lid.

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HOW MANY CONTAINERS WERE PACKED LIKE THIS AND WHERE ARE THEY?

More than 500, according to state regulators. More than 350 of the containers are already at the subterranean dump, in storage rooms carved into ancient salt beds a half mile below the ground. Fifty-seven are still on the campus of Los Alamos, which had been working under orders to remove the last of thousands of such containers from outdoor storage by the end of June. The waste came to the public's attention three years ago as a massive wildfire lapped at the edges of lab property. More than 100 more barrels are at Waste Control Specialists in Andrews, Texas, where they were sent for temporary storage as Los Alamos worked to remove the waste following the radiation leak.

COULD THE OTHER BARRELS BE TICKING TIME BOMBS?

That question has state regulators concerned. Flynn this week ordered Los Alamos to submit plans for ensuring the 57 containers of questionably packed waste still on its campus are isolated and secure. The lab said it has packed them in special containers, placed them under a dome with a fire extinguishing system and is closely monitoring them. Waste Control Specialists has taken similar precautions. As for the more than 350 containers already at the Waste Isolation Pilot Plant, Flynn has ordered the U.S. Department of Energy to expedite plans for sealing off the underground rooms where the waste is stored. Complicating that effort is the laborious investigative process. The cause of the leak has not yet been determined. Crews have been able to make about two trips a week into the area where the leak occurred, but it's a painstaking process and they are still working to see if other containers have been breached.

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