



Unreported event at Hanford nuclear site that sickened workers 'smells like a cover-up,' advocates say

Workers reported smelling odors, resulting in symptoms such as dizziness and shortness of breath. The contractor denied a chronic problem, toxic vapors, is to blame.

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RICHLAND, Wash. — On June 18 of this year, 10 workers at the Hanford nuclear site in eastern Washington digging in what are known as the "tank farms," were overcome by strange odors. Nine of the workers sought medical treatment, including three who were transported to the hospital for an overnight stay and were given oxygen.

The KING 5 Investigators have found the event went unreported by the contractor involved - [Washington River Protection Solutions](#) (WRPS).

According to [WRPS documents](#) obtained by KING 5, [symptoms reported](#) by workers included dizziness, shortness of breath, chest pain, headache, nausea, a metallic taste in the mouth, stomach issues, light headedness and cough.

Smelling unusual odors, followed by adverse medical conditions are hallmark signs of a chronic problem at the nuclear reservation: exposure to toxic vapors that vent from underground nuclear waste holding tanks.

WRPS is under a legal obligation to report vapor events on a publicly available website.

“I’m still amazed that not one piece of paper has been put out about this exposure, there’s been no announcement,” said [Tom Carpenter](#), executive director of the advocacy group [Hanford Challenge](#). “It’s getting to the point where this silence is very suspicious. It’s like: ‘What are you hiding?’”

The contractor said they did not post the event on their website because they’ve determined the worker's symptoms were not caused by vapors, but “most likely” by a malfunctioning gas-powered wheelbarrow.

“WRPS collected air samples from the small pieces of fuel-powered equipment used in the soil work. One piece of equipment, a small gasoline-powered wheelbarrow that was difficult to start and used during the June 18 event, was smoking when it started and high levels of volatile organic compound emissions were noted,” a WRPS spokesperson said.

[Toxic vapor exposures](#) have been a significant problem at Hanford since the 1980s when the operational mission went from producing plutonium, to clean up only.

[Several government reports](#) have identified that poisonous vapors, without warning, will vent from underground tanks. Hanford has 177 underground holding tanks that store the deadliest waste at the site.

Tanks in the tank farm near where the workers got ill in June contain [contents](#) including plutonium, the radioactive isotopes of americium and strontium 90, mercury, nickel, lead and cyanide.

In 2014 the KING 5 Investigators [revealed](#) a record number of vapor exposures in the tank farms. Approximately 56 workers fell ill with symptoms in the rash of exposures. After each incident, WRPS said their testing didn’t show chemicals of concern over regulatory limits. WRPS officials denied chemical vapors were to blame for the events.

That pattern wasn’t new. Expert reports detailed the same cycle happened at Hanford in the 80s and in the 90s: a slew of exposures, followed by denials by the tank farm contractor, and workers left sick and unable to work.

Many workers said they felt betrayed by the contractors over the years for not being honest about the dangers of vapors.

“Until they are in the field and until they smell what we smell and until they feel like we feel and until they get injured like we get injured, they don’t care,” said Mike Cain, a 47-year current Hanford employee who spent 25 of those years in the tank farms. “Everything that we described 30 years ago, 40 years ago, is still there. Yet they keep doing the same thing over and over and over again.”

After the string of exposures in 2014, [Washington State Attorney General](#) Bob Ferguson, Hanford Challenge and [Local 598](#) all filed [lawsuits](#) against WRPS and Hanford’s owner, the U.S. Department of Energy. The complaint accused the contractor and federal government of failing to protect workers from vapor exposures, that can cause adverse health effects including lung disease, nervous system damage and cancers of the liver, lung, blood and other organs. The lawsuit also alleged the Department of Energy had been well aware of the dangers for 25 years, yet “Energy did not fix the problem.”

A [settlement agreement](#) was reached in September 2018. Hanford officials [agreed](#) to improve health and safety conditions, install engineering to keep vapors out of the breathing space of workers. They also agreed to provide respiratory protections including supplied (fresh) air that is worn in tanks on the backs of workers, if needed.

In the June event, workers were not using supplied air. According to workers, the contractor had downgraded respiratory protection to respirators with cartridges. Respirators are lighter and more cost effective than supplied air.

“(That) never should have happened if they were wearing fresh air. Never should have happened,” Cain said.

“They’re not protecting workers. They have a long history of not doing so, of putting money and profits before workers health and safety which is ironic because they’re all about saying they want to protect health and safety. They’re not doing it,” Carpenter said.

A WRPS spokesperson said the company did not skimp on safety protocols in the June event.

“Respiratory controls at the TX Farm during the June 18, 2021 event complied with the tank farms vapors settlement agreement requirements... workers were wearing air-purifying respirators consistent with interim mandatory respiratory protections consistent with cartridge testing results,” the spokesperson said.

What is Hanford?

Hanford is the most contaminated worksite in America. Located near Richland in eastern, Wash., workers at the site produced plutonium for the country's nuclear weapons program for approximately four decades. Plutonium produced at Hanford fueled the bomb dropped on Nagasaki, Japan, that led to the end of WWII. Since the late 80s, Hanford has been a clean up site only.

The settlement agreement also makes it mandatory for WRPS to report events on its website that fall into the category of an “AOP-15.” On the WRPS website, an AOP 15 [is described](#) as an unidentified odor event: “When a worker reports an unexpected and unidentified odor in the tank farms, and reports medical symptoms potentially related to that smell.”

In the June event, WRPS did not characterize it as an AOP-15, therefore, company executives said they had no obligation to report it.

“Smells like a cover-up”

“This lack of information sharing and reporting smells like a cover-up. We do not want to see a return to downgraded worker protections that result in routine vapor exposures. The cycle of exposures must end at Hanford, and meaningful and long-lasting regulations should be enacted to assure that Hanford tank farm workers can conduct a cleanup without risking their own health and safety,” said Carpenter of Hanford Challenge in a [press statement](#) sent on Friday.

On Thursday, a WRPS executive told KING 5 that the company’s definition of an AOP-15 had changed in 2020. In [an email](#) to employees on Dec. 1, 2020, WRPS Executive Jeremy Hartley said that moving forward, an AOP-15 will occur when personal ammonia monitors worn by workers set off an alarm.

“Ammonia has been verified as a sentinel indicator of changing levels of other chemicals of potential concern. The procedure changes clarify and reinforce a disciplined conduct of operations by recognizing the administrative and engineering controls in place, relying on the ammonia monitors and verifying the conditions when an alarm set point is reached,” Hartley wrote.

Given this change, the WRPS spokesperson said they followed protocol by not reporting the event on the website.

“As this event did not involve an ammonia alarm, it is not classified as an AOP-15,” the spokesperson said.

Government scientists have concluded that ammonia does not have to be present for other chemicals of concern to release in concentrations that could harm human health. In 2004 the Department of Energy released a Hanford report concluding the potentially harmful gas, nitrous oxide, can be present without the presence of ammonia.

“Based on...characterization data (the contractor) CH2M HILL has incorrectly assumed that nitrous oxides are present only when ammonia is present,” report authors wrote. “...nitrous oxide vapors in tank headspaces can be present in (dangerous) concentrations, even in the absence of ammonia.”

Stakeholders such as Hanford Challenge and union safety representatives said they were unaware that WRPS had changed its AOP-15 definition.

A WRPS communications specialist said they are committed to the safety of workers.

“The health and safety of the workforce is always paramount,” the company official said.