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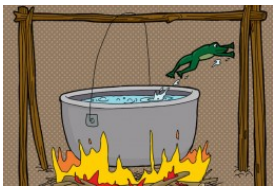


No, Humans Are Not Like 'Slowly Boiling Frogs'

CLIMATE

More North Carolina Residents Warned Of Contaminated Drinking Water

BY **EMILY ATKIN** MAY 6, 2015 12:03 PM

CREDIT: AP PHOTO/GERRY BROOME

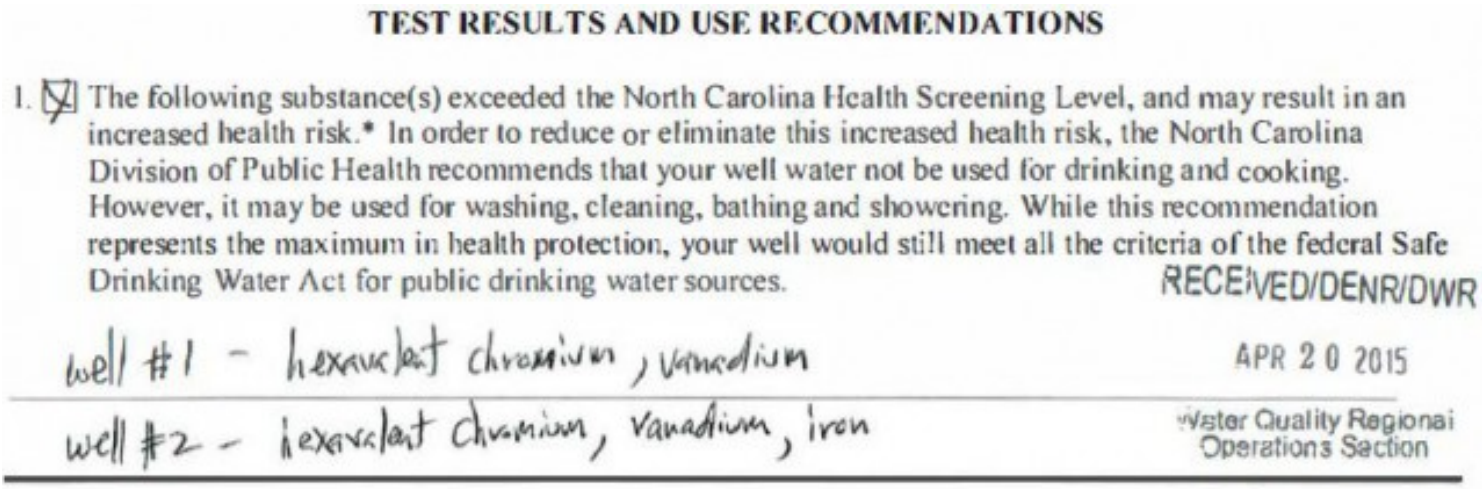
In this Feb. 5, 2014 photo, Jenny Edwards, program manager for Rockingham County with the Dan River Basin Association, scoops coal ash from the banks of the Dan River.

The state of North Carolina is sending more letters to residents living near coal ash ponds warning them not to drink their water, after tests showed elevated levels of toxic heavy metals.

According to the Associated Press, 152 out of 163 water wells tested within 1,000 feet of Duke Energy coal ash ponds failed to meet state standards for groundwater — a 93 percent rate of contamination. A large number of the tests reportedly showed high levels of lead, vanadium, and hexavalent chromium, the latter of which is carcinogenic to humans.

Duke Energy is denying its coal ash ponds are causing the pollution, saying it is occurring naturally. Duke is, however, providing bottled water to a small fraction of the affected residents.

"We do not believe our ash basins are responsible for the water quality concerns, but we want them to have peace of mind while more study is done," Paige Sheehan, a Duke spokeswoman, told the AP.



TEST RESULTS AND USE RECOMMENDATIONS

1. ☒ The following substance(s) exceeded the North Carolina Health Screening Level, and may result in an increased health risk.* In order to reduce or eliminate this increased health risk, the North Carolina Division of Public Health recommends that your well water not be used for drinking and cooking. However, it may be used for washing, cleaning, bathing and showering. While this recommendation represents the maximum in health protection, your well would still meet all the criteria of the federal Safe Drinking Water Act for public drinking water sources.

RECEIVED/DENR/DWR

well #1 - hexavalent chromium, vanadium

APR 20 2015

well #2 - hexavalent chromium, vanadium, iron

Water Quality Regional Operations Section

*A screengrab from a letter sent to a family in Salisbury, North Carolina, warning them of contaminated drinking water.*CREDIT: NORTH CAROLINA DNER

For the last few months, the North Carolina Department of Environment and Natural Resources (DENR) has been testing private drinking water wells near Duke Energy-owned coal ash dumps, to see if they are contaminated. They're doing that because of an 39,000-ton coal ash spill from one of Duke's storage ponds last year which contaminated the river's water, thereby sparking concerns from other residents living near coal ash ponds that they might be at similar risk.

The tests are only conducted at water wells within 1,000 feet of a storage pit for coal ash, and analyzed only for constituents that might be associated with the waste. Coal ash is the toxic byproduct of burning coal and often contains chemicals like arsenic, chromium, mercury, and lead. It is the second-largest form of waste generated in the United States.

In test results released last month, DENR showed contamination of 87 private drinking water wells for households located near eight Duke plants across the state. Test results are expected to continue being released in the months ahead.

Some communities throughout North Carolina are more disproportionately affected than others. Of the 87 letters sent last month, for instance, 20 were in a small unincorporated community called Dukeville. The community is named after Duke Energy and surrounds the company's coal ash ponds at Buck Steam Station, a retired coal plant that now burns natural gas.

Dukeville residents have been grappling with contamination concerns for more than a year, since hearing of the dangers of the Dan River spill in 2014. Many residents there claim the community has an unprecedented rate of brain cancer and tumors — one family even compiled a list of all the neighbors they knew of who had died from cancer, been diagnosed, or had a tumor, and imposed them on a map of the town.

In this map of Dukeville provided by Ron and JoAnn Thomas, clusters of cancer cases known by the Thomas family are marked in red, surrounding Duke Energy's coal ash ponds, marked in yellow.

CREDIT: IMAGE COURTESY OF RON AND JOANN THOMAS

The North Carolina Department of Health and Human Services insists these cases aren't abnormal, saying the county's cancer cases have been spread out over a long period of time, and have largely occurred in people who were 50-years-old or older.

Still, the tests done by DENR confirmed other tests done by environmental groups that found drinking water in Dukeville and other communities across North Carolina had been infiltrated by chemicals found in coal ash. However, there is presently no immediate direct evidence that the widespread contamination is in fact the result of coal ash.

Why can't the contamination be traced directly to coal ash? In a statement to ThinkProgress last month, Duke spokesperson Erin Culbert said the heavy metals could be occurring naturally. She also said each well had an absence of boron and sulfates, which she said are "key indicators of groundwater potentially impacted by coal ash, because they migrate more quickly than other trace elements."

When asked about the presence of hexavalent chromium, which is not often found in nature and is more associated with industrial processes, Culbert said via e-mail on Wednesday that it can sometimes be found naturally when there is a high presence of manganese dioxide in the soil.

"There is some scientific study that suggests chromium in the presence of manganese dioxide can

manifest itself as chromium 6 naturally in the soil, and of course, manganese is very prevalent here," she said. "So that's one of the many reasons why we need to complete these thorough groundwater assessments to really determine where these substances originate."

Culbert also said there would be "more clarity" in the coming months are more studies are released about the contamination.

"If we find out our operations are impacting neighboring wells, we'll quickly find a permanent solution to address it," she said.

UPDATE

This article has been updated with comments from Duke Energy, and with the correct estimate of the Dan River spill. It was 39,000 tons of ash, not 82,000 tons, which was the original estimate. ThinkProgress regrets the error.

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