

## **CLIMATEPROGRESS** Experts Warn West Virginia Water May Still Be Unsafe

BY [KILEY KROH](#)  ON JANUARY 18, 2014 AT 2:43 PM



CREDIT: AP PHOTO/STEVE HELBER

Nine days after a leak was discovered at a Freedom Industries chemical storage site, spilling an estimated 7,500 gallons of a hazardous and little-known chemical into the Elk River and contaminating the water supply for 300,000 West Virginians, officials said that a study used to determine whether the water is safe doesn't include several chemical components that leached into the water.

"A key corporate study used by federal health officials to set a screening level for 'crude MCHM' in the West Virginia American Water system actually tested a pure form of the material's main ingredient and might not account for potential toxicity of other

components,” the Charleston Gazette reported on Friday.

The substance that is thought to have spilled, crude MCHM, is actually a mixture of chemicals used to wash coal of its impurities, explained Evan Hansen, president of Morgantown-based Downstream Strategies, in an interview with Climate Progress.

“There are six chemicals plus water that are ingredients of crude MCHM,” said Hansen. The primary ingredient is 4-methylcyclohexanemethanol, which comprises 68 to 89 percent of crude MCHM. Of the multiple ingredients, the only one that a material safety data sheet (MSDS) has any information about in terms of exposure limits is methanol.

“If crude MCHM is truly what leaked, it’s possible that we don’t even know which of this ‘cocktail’ is most harmful. We could have set a threshold based on the wrong one. We may be testing the wrong one,” said Hansen.

State officials have maintained that concentrations of the chemical below 1 part per million are considered safe, based on consultations with the Centers for Disease Control and Prevention (CDC). The CDC derived that threshold largely from a 1990 study conducted by Eastman Chemical Company, which sold the chemical to Freedom Industries. The Eastman study, however, only tested the substance in its pure form, 4-MCHM.

Questions have been raised consistently about the scientific basis for the 1 ppm threshold but the CDC refused repeated requests for clarification from the Charleston Gazette. And the agency’s questionable safety standard came under fire earlier this week after the CDC recommended that pregnant women not drink the water until there was no traceable amount of crude MCHM, despite the fact that tens of thousands of residents had already been told their water was safe.

On Friday, West Virginia American Water’s map of the affected area was turned completely blue for the first time, meaning all residents were clear to begin using and drinking their water once again. However, West Virginia Department of Education officials recommended that schools in the nine affected counties continue using bottled water. And Dr. Raheel Khan of the West Virginia chapter of the American Academy of Pediatrics told the Kanawha Charleston Board of Health on Thursday that if pregnant women shouldn’t drink the water until the chemicals have reached undetectable levels, then neither should small children, the Charleston Gazette reported.

Hansen said that despite the fact that the water use ban has been lifted, three critical questions remain: “One, what chemical actually spilled? Two, are they testing for the

chemical or chemicals that actually spilled? And number three, is the 1 part per million threshold set based on the chemical or chemicals that actually spilled?"

In addition to multiple concerns related to the CDC's safety standards, methodology, and transparency, Hansen said he feels much of the blame falls on the state and the long [history of lax oversight](#) this incident exposed. "I still think it's unbelievable that the West Virginia DEP [Department of Environmental Protection], which administers and enforces the industrial stormwater permit covering this facility, didn't inspect it and didn't feel like it was their job to pay any special attention to a site that was storing such large quantities of hazardous chemicals above a drinking water intake."

Overall, Hansen said "everything" regarding the response to the crisis thus far has concerned him. "The communication about the risks involved and the steps people should take is very poor."

## From the Web

by Taboola

### **88 Year Old Yoga Teacher Shares Her Secret To Never Ending Energy**

Health 1st

### **What the Bible Says About Money (Shocking)**

Moneynews

### **7 Healthy Foods that Turned Out to Be Unhealthy**

My Diet

### **You Won't Believe Who's Related to Abraham Lincoln**

Ancestry.com

### **Some Dude Hacks Microwave, Puts Manufacturers to Shame**

Reviewed.com

### **This Might Be Hollywood's Weirdest Couple**

Refinery29

### **Vote: Should Father Have A Right To 'Financial Abortion'?**

Hubub

### **10 Items You're Too Old to Wear**