Expert: Perchlorate risk poorly understood

Toxicologist says regulation not needed immediately

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RIALTO - A university toxicologist says there's no public health emergency to warrant urgent regulation of perchlorate in drinking water.

Bob Krieger, an 11-year UC Riverside faculty member, suggested state regulators wait for a report due later this year from a National Academy of Sciences panel reviewing the U.S. Environmental Protection Agency's proposed perchlorate water standard.

"I think it's not a good idea to get into the business of guessing," Krieger said in a phone interview.

Krieger and two other scientists were asked if state officials are on track in their quest to regulate perchlorate, a rocket fuel component contaminating groundwater and costing taxpayers as well as polluters millions of dollars to remove.

Krieger disagrees with the two others who reported that the low levels suggested by the state's Office of Environmental Health Hazard Assessment are on target for a regulatory benchmark, according to documents released this month.

State officials plan to forge ahead despite the concerns Krieger expressed.

"We feel that our document has been thoroughly reviewed," Office of Environmental Health Hazard Assessment spokesman Allan Hirsch said. "We have the information we need to go ahead and finalize this."

The agency will likely report by March 12 that a level somewhere between 2 and 18 parts per billion is safe. One part per billion, or ppb, is equivalent to half a teaspoon in an Olympic-size swimming pool.

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The Department of Health Services will develop an enforceable standard based on the level determined by Office of Environmental Health Hazard Assessment. That process will take about a year.

Perchlorate has contaminated 20 wells in the Rialto-Colton basin, and many other local water suppliers have discovered the chemical in their wells. All use expensive treatment systems or blending to reduce concentrations to nondetectable levels.

Most affected wells contain 10 ppb or less, but some have higher levels, including one near a pollution source in north Rialto that contains about 820 ppb. The area was used to store and manufacture perchlorate-containing military ordnance during and after World War II.

Minute levels of the chemical have also been detected in lettuce.

In humans, perchlorate can prevent the thyroid from absorbing iodine, an element essential to the production of certain hormones.

Some environmentalists and scientists claim trace amounts of the chemical can affect fetal and newborn brain development by reducing thyroid hormone production.

Others, including Krieger, contend low levels of perchlorate are no more dangerous than Brussels sprouts, which contain a natural chemical that also inhibits iodine absorption.

Perchlorate has attracted so much attention because of factors that have nothing to do with its effect on people, Krieger said.

"If you want something to oppose, how can you do any better than the military and rocket fuel?" he asked. "We drive these standards down to low levels based on the naivete of the public."

Those on both sides of the issue often cite a clinical study that concluded perchlorate has no effect on healthy adults at levels up to 200 ppb.

But the side seeking a speedy resolution and a strict standard points out the study's weakness in setting a regulation for all Californians.

"The study did not test pregnant women, the study did not test fetuses, and it did not test infants," Hirsch said.

While the state has no enforceable perchlorate standard, the Department of Health Services has cautioned suppliers to be wary if a well reaches 4 ppb. Water providers are required to tell their governing bodies if a well reaches or surpasses the level.

Consumer notification is not mandatory, but it is recommended.

The scientific reviews of the state assessment of perchlorate's effects can be viewed online at http://www.oehha.ca.gov

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