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All the Junk That's Fit to Debunk

Pitt prof caught off base in new frack attack

Posted on [March 27, 2011](#) | [6 Comments](#)

University of Pittsburgh assistant professor Conrad (Dan) Volz issued a [report](#) on March 21 to scientists and the U.S. EPA claiming that natural gas industry is dumping carcinogenic agents into drinking water.

But just two days after a group of professionals reviewed the “[report](#),” Volz backtracked somewhat: apologizing, issuing a [revised report](#), and explaining that numerous references he used in the report were incorrect and/or misstated. He nevertheless maintained that,

“... our overall environmental public health conclusions and recommendations have not changed despite these fundamental errors.”

But even with the “corrections,” Volz’s report continues to misstate, misrepresent and misuse facts, data and government criteria. Specifically, Volz:

- Demonstrates a lack of understanding and/or a disregard of federal and state environmental standards. For example, he relies heavily on Safe Drinking Water Act maximum contaminant levels (MCLs) that apply only at points of use for actual drinking water supply systems. He wrongly compares effluent discharges from a commercial treatment plant that discharges into a nearly-dead creek to these drinking water standards.
- Claims exceedances of drinking water standards despite that there are no drinking water intakes or uses — and none are possible because the creek is so polluted from abandoned coal mine discharges for miles above and below the brine treatment facility.
- Claims limits for contaminants such as strontium that cannot be found in federal or state regulations.
- Asserts that anglers frequent the stream and that it is listed for trout stocking. But there are no fish to be caught and the stream is not stocked due to mine water pollution that has degraded the entire stream. No trout have been stocked in Blacklick Creek for years.
- Erroneously picks primary and secondary water quality criteria that are not applicable for discharges into Blacklick Creek. He then compares them to discharge levels from his brief, one-day study to claim that people “are at risk.” He called for an immediate shutdown of treatment plants while studies can be completed. But professional studies have already been completed showing the treatment plants are safe and these are available at Pennsylvania Department of the Environment (OPADEP) offices.
- Relies heavily on U.S. Agency for Toxic Substances and Disease registry (ATSDR) minimal risk levels (MRLs) for comparison of risks from brine treatment discharges in Blacklick Creek. [According to the ATSDR](#), “An MRL is an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse noncancer health effects over a specified duration of exposure. These substance specific estimates, which are intended to serve as screening levels, are used by ATSDR health assessors and other responders to identify contaminants and potential health effects that may be of concern at hazardous waste sites. It is important to note that MRLs are not intended to define clean up or action levels for ATSDR or other Agencies.”

- Fails in any way to evaluate daily human exposure — an evaluation that risk assessment professionals perform by evaluating actual populations, usage and acute/chronic toxicity exposure scenarios. While MRLs are used only in an initial screening evaluation, Volz uses these levels to reach his conclusions, which were remarkably unaffected even when monumental errors were found and corrected from his initial report.
- Relied on sample results taken during one 24-hour period, three hours apart, for a total of eight samples during one day. We are aware of no federal or state agency that draws any risk-based conclusions from a study of results for just one day. Such a “study” ignores: seasonal variations, flow variation, stream mixing and dilution properties, unique thermal conditions and stream transects that are all critical components of studies that are essential for federal or state stream evaluations under the Clean Water Act or the federal Superfund law.
- Used this extremely limited data as the basis for speaking of “mean,” “maximum,” and “average” levels — as if a statistically significant population of results had been used. Again, no federal or state agency would reach conclusions on such limited data nor review it if submitted by any party.
- Includes an entire section devoted to “mass loadings” of pollutants in order to inform the readers of the “tons of pollutants” being discharged into Blacklick Creek. First, mass loadings have no scientific purpose. Only concentrations are of consequence and then only when considered over the relevant time/exposure period. The mass of “pounds or tons” of pollutants are presented to sensationalize and scare. If they were compared to things like road salt use, they will pale in comparison. In similar fashion, Volz seems to have converted part per million (ppm) concentrations to part per billion (ppb) concentrations so he could add three “zeros” to each number and make them appear much larger — even when the standard is in ppm.
- Mentions anglers who catch and eat fish from Blacklick Creek and swimmers who will absorb contaminants by “dermal contact.” Governmental agencies who prepare or review such claims insist on studies of actual exposures. Volz only points to web sites indicating that locals “may be” using the creek. He claims such persons “are at risk” several times in the report.
- Claims water users are at risk because their wells “may” be able to pump water from Blacklick Creek. This ignores all science and the fact that net flow is into Blacklick Creek, not from it to underground waters.
- Claims that residents of Freeport on the Allegheny River are at risk despite that Freeport is dozens of miles away. Further, the stream is so extensively diluted at that point that the years of operation of brine treatment plants AND the decades of coal mine pollution have never come close to affecting that water supply system.
- Calls for immediate shutdown of the brine treatment plant while his concerns can be studied. The good news, however, is that all his concerns have already been addressed. The PADEP and EPA have reviewed and approved permits for the discharges on several occasions. That review and approval process ALWAYS includes an evaluation of all influent and effluent streams; any “reasonable potential” for water quality standards to be exceeded at any time of the year; and assurance that no drinking water supply can be adversely affected. Volz also calls for signs and warning to fishermen and residents. But Volz is years late in his concerns for the dangers of pollution of Blacklick Creek. Through the efforts of local conservation groups, a once totally dead stream as a result of abandoned coal mines is now showing some signs of life. As the stream improves, the standards for the brine treatment plants are tightened to assure no adverse impact. This system has been in place since the 1970’s and continues to reap the desired benefit and goals of the Clean Water Act.

Volz’s errors don’t come as a surprise given that he has shed the mantle of scientist in favor of anti-fracking activism. As recently [reported](#) by CitizensVoice.com,

Volz repeatedly reminded people the [fracking] situation is political, urging them to vote out

lawmakers who don't do what the people want.

Will Volz's junk science-fueled comments get him in the same water as this [academic](#) who spoke the scientific truth?

The University of Pittsburgh might want to get a grip on Volz before it winds up with another embarrassing [Herb Needleman](#) on its hands.



Conrad Dan Volz is lost in the tall grass of junk science.

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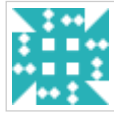
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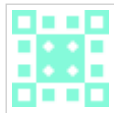
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This would be hysterical if it wasn't true.

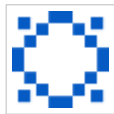
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Finally someone picks up some dirt on this guy. Lie after lie, yet people and media outlets continue to give this guy credit. Another (assistant) professor who thinks that because he has a PhD in one category that he's a doctor of everything. Kudos to JunkScience for exposing this guy for who he really is.

Pitt should be embarrassed of this clown and his over-sized clown ties.

Stephen McDaniel | [March 29, 2011 at 11:30 am](#) | [Reply](#)



How sad, our tax dollars are used to fund a school that would hire such a person, who will say anything in the name of science to mislead people who should trust a professor! People of America, wakeup! This man and many just like him want to influence your thinking for their own personal gain!

[Sue Mickley](#) | [March 29, 2011 at 11:56 am](#) | [Reply](#)



It seems Josh Fox has a knack for finding these people. Every time they are debunked, like the mayor of Dish, Texas, Josh and his anti-drilling cronies find another stooge. Too bad for Pitt's credibility and all the hard working scientists there whose reputation is in question because of this representative of their university. Glad my two children passed on going to Pitt.

[billadams](#) | [March 29, 2011 at 12:05 pm](#) | [Reply](#)



Wonder if Pitt and Penn State both commit academic fraud so neither one can look good. Swirling, swirling 'round the drain.

[Sue Mickley](#) | [March 29, 2011 at 12:21 pm](#) | [Reply](#)



On another note, I have a masters in Public Health from Yale U. Shame on him for saying its not about the science when coal-fired plants kill 17,000 people a year, cause over 200,000 heart attacks per year, and 250,000 new cases of asthma PER YEAR! Where is his responsibility as a Public Health scientist. Study Texas, particularly Dish, Texas, Ft. Worth (1000 wells in the city limits), and the primary counties in the Barnett Shale Basin where modern fracking has been going on form over 10 years. Their health is improving by 2-3 fold according to the NIH's 2008 national study, the Texas Health Department, and the County and city health departments. All public health scietists know that a flourishing economy improves health. The only ones showing any ill affect were the cigarette smokers in Dish, Texas from the Benzene in their cigarettes.

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