

## Response to EWG's January 11 Article on Radioactive Tap Water

### By Jeffrey G. Lawson, FRWA Engineer

On January 11, the Environmental Working Group (EWG) published an article on their website claiming that 170 million Americans (served by over 22,000 utilities in all 50 states) are currently drinking radioactive tap water and as a result, are at an increased risk of cancer. While the article touches on several radionuclides that are regulated under the Safe Drinking Water Act (and one that isn't regulated under the Act) their ire and attention was directed mainly at radium. The entire article, between their discussions on radionuclides and their trashing of a recent White House nominee, is nothing but an unscientific and inflammatory hit piece. The article serves no purpose except to unnecessarily frighten the public about the quality of their tap water.

Much of the article is devoted to trashing the recent White House nominee, Kathleen Hartnett White, as head of the White House Council on Environmental Quality and former chair of Texas CEQ. Ms. White is accused of everything from knowingly falsifying data to not believing in the science of health effects. They use her nomination as a proxy for bashing the current administration and EPA. The nomination is also used as a way to advocate for a significant tightening of EPA regulations on radionuclides.

The article mentions several times that over 22,000 public water systems are supplying 170 million people nationwide with drinking water that EWG claims is contaminated with radionuclides. They do eventually admit that of those 22,000+ water systems only 158 of them in 27 states actually violated US EPA's maximum contaminant level (MCL) for a radionuclide. As with their tap water database itself, after the article scares the readers into thinking their tap water will make them glow in the dark at night, they include "tips" for protecting your tap water. Their tips include a link to their "Water Filter Guide" which directs readers to their Amazon store to purchase expensive water filters which EWG would benefit financially from.

In both this article and a July 2017 report, they include a link to EWG that makes no secret that they do not agree with US EPA's MCL for radionuclides. In particular, they denounce the fact that EPA takes into account the ability of modern water treatment technology to remove a contaminant from the water. They advocate for an MCL similar to California's public health guidelines that is based solely on a 1 in 1,000,000 cancer risk (a level their report shows current technology cannot meet) and laboratory methods cannot detect.

Element	Primary health concern	Detection level, in picocuries per liter*	Health-based limits** (one-in-a-million cancer risk), in picocuries per liter unless noted	National Maximum Contaminant Level (MCL), in picocuries per liter unless noted	Cancer risk at legal limit
Radium 226	Bone cancer, other cancers	1, for combined radium 226+228	0.019	5 for combined radium 226+228	7 cancer cases per 100,000 exposed
Radium-228			0.05		
Radon	Lung cancer via inhalation	100	1.5	An advisory level of either 300 or 4,000#	
Uranium	Kidney damage, cancer	1	0.43	20## pCi/L	4.6 cancer cases in 100,000
Tritium	Cancer	1,000	400	20,000	5 cancer cases in 100,000
Strontium-90	Bone cancer, leukemia	0.5	0.35	8	2 cancer cases per 100,000

EWG also admits in the article that these radionuclides can be naturally occurring as is the case for Florida water systems. If EWG receives the limit that they are asking for, modern technology cannot feasibly be expected to meet these limits since labs cannot detect them. If these limits are combined with naturally occurring deposits of those same radionuclides it would not be beneficial to the public as EWG alleges. This would result in many utilities being forced to abandon their drinking water systems due to their financial inability to adequately treat their water. This would potentially force millions of Americans to either purchase expensive bottled water for drinking and cooking or move to well water. Either way, the public would be better off than they are today. EPA recognizes this fact, which is precisely why they take into account the water system's ability to use modern technology to achieve the limits they set. Yet again, EWG is unnecessarily scaring the public about the quality of their tap water in attempt to bash a political nominee and the White House. EWG is advocating for limits that cannot be met and frightening the public into buying filters from their online store.