

California Repudiates Erin Brockovich on Hexavalent Chromium



By Alex Berezow, PhD — August 2, 2017



Wikipedia: Gage Skidmore/Wikipedia [1]

When Erin Brockovich, an environmental activist, shook down Pacific Gas & Electric for \$333 million for allegedly poisoning a community with hexavalent chromium and causing cancer and all sorts of other health problems, Julia Roberts portrayed the protagonist in a sensationalized blockbuster movie. It is unlikely, however, that Hollywood will be filming a sequel.

Why? Because not only was Ms. Brockovich wrong, but the State of California has now partially repudiated what she fought for.

Erin Brockovich, Junk Scientist

We've known for a long time that Ms. Brockovich used junk science to score a jackpot settlement. She used a common rhetorical trick, known as the [Texas sharpshooter fallacy](#) [2], to claim that a cluster of cancer and other diseases in the small town of Hinkley, California was the result of groundwater contamination by hexavalent chromium.

There were multiple problems with this argument. First, as hinted above, a cluster of cases is not necessarily indicative of anything. By sheer chance alone, patients with particular diseases -- even rare ones -- can occasionally be found in close proximity to one another. Second, an epidemiological survey found [no extra cases of cancer](#) [3] in Hinkley than what normally would be expected. Third, while inhaled hexavalent chromium is linked to lung cancer, there is [no evidence that ingesting tiny amounts of hexavalent chromium is harmful](#) [4]. Fourth, Ms. Brockovich's case did not make biomedical sense, because she not only blamed hexavalent chromium for causing cancer but a myriad of unrelated conditions. As Joe Schwarcz wrote for [Quackwatch](#) [4] back in 2004:

Whether it's a miscarriage, a rash, bone deterioration, Crohn's disease, lupus, or any sort of cancer, Brockovich points the finger at chromium-6. In all probability she is wrong. Single toxins do not cause such a wide array of conditions.

State of California Repudiates Erin Brockovich

Now, the [Sacramento Bee](#) [5] reports that California water regulators have decided against implementing a rule that would have capped hexavalent chromium in drinking water at 10 parts per billion (ppb). A judge said the rule was invalid because economic feasibility was not considered.

That's not a complete victory; indeed, California could very well implement the 10 ppb rule anyway. And the rule was deemed invalid based on economics, not science. But let's hope that reason ultimately will prevail in this momentary triumph of sanity.

According to the [EPA](#) [6], hexavalent chromium can be found in drinking water from both natural and manmade sources. The federal limit for total chromium (i.e., chromium-3 and chromium-6) is 100 ppb, and this has been the agency's policy for many years. California's desire to decrease the limit to 10 ppb lacks scientific justification, and as to be expected, its biggest champion is the thoroughly unscientific Environmental Working Group.

The Truth Wins... For Now

It goes without saying that Hollywood will not make a sequel to *Erin Brokovich* about how a scientifically untrained legal clerk bamboozled America with junk science. Nor will Pacific Gas & Electric be reimbursed the \$333 million that was stolen from it.

However, after nearly 20 years, the truth has finally been vindicated. People who still care about that sort of thing can find some comfort in that small victory.

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