

Dein Shapiro

My name is Dr. Dein Shapiro. I am Board Certified in Family Practice and I am in my 39th year of medical practice serving the residents of Somerset and Hunterdon Counties in New Jersey. I am also the principle author of two resolutions passed by the Medical Society of New Jersey (MSNJ). The first recommends a ban on hydraulic fracturing in New Jersey and in the DRB based on the risks to the environment and the substantial risks to public health. The second resolution recommends that the PennEast pipeline not be built, also based on environmental and public health risks. I am speaking today as a concerned private citizen and not as spokesperson for the MSNJ.

I am pleased that recent statements by DRBC seem to move away from fracking in the DRB, but I am still concerned that the oil and gas industry would like to divert Delaware River water for fracking operations, and treat or dispose of fracking wastewater within the river basin. I believe the wording of your proposed regulations leaves open the possibility that this could happen. Both of these could significantly impact the river, the quality of its water, and the public health. Therefore, I believe this would be very bad for the DRB and the citizens of the region. Furthermore, the fracking industry is a very powerful private interest group with significant political connections that is investing billions in this region. They will be very difficult to stop, impede, or discourage without very tight, no nonsense regulations that just simply say 'no.'

1. Water Removal:

If you allow water to be removed from the DRB for fracking, you would be diverting a significant portion of a clean and renewable source of drinking water that serves 15-17 million people, and converting that water into a contaminated waste that would be extremely difficult to contain, decontaminate, or dispose of safely. Currently, according to your proposal (page 7), 90% of water used in the Basin is returned to the water cycle, but up to 90% of water removed for fracking operations would be permanently removed from the water cycle.

Therefore, I would like to request that your proposed regulations should clearly state that no water can be removed from the DRB to support fracking operations and it should be the policy of DRBC not issue such permits under any circumstances.

2. Wastewater Treatment:

Secondly, on page 8 of your proposed regulations you state that, according to the EPA, there are more than 1000 known chemicals (many with serious and well documented public health hazards) that are used in fracking, and it is well known many more are considered "proprietary" and therefore not disclosed. On page 19, you state that "...treatability studies will be required" to document that decontamination has been effective. But, how can you effectively and continuously test for 1000 known substances (let alone unknown ingredients allowed by the Halliburton Rule), the contents of which may vary from day today, from well to well, and batch to batch of wastewater. It is not possible. I believe there is no reasonable testing program that would assure the public health and safety of our citizens and therefore, the importation and attempted treatment of fracking wastewater of any type should not be permitted. This concern includes any form of Central Waste Treatment facility (as described on page 18 of your document) and especially if the discharge of that facility would enter the water of the DRB.

As a New Jersey physician and public health advocate, I am urging you to adjust your regulations to state categorically that no fracking wastewater will be accepted within the DRB for treatment because the public health risks are unacceptable. This request includes the effluent from any CWT in current operation, planned or proposed.

3. Storage and Injection Wells:

And lastly, I am concerned that I did not find any mention in your proposal regarding the use of injection wells for the storage of contaminated fracking waste. Injection wells are the most common method of wastewater disposal for the fracking industry. The use of injection wells for fracking wastewater disposal should not be permitted in the DRB because the risk of ground and surface water contamination are too high, and once that contamination has taken place, there is no real possibility of remediation.

On pages 15-17 of the publication by the Physicians for Social Responsibility entitled "Too Dirty, Too Dangerous: Why health professionals reject natural gas"

(<http://www.psr.org/assets/pdfs/too-dirty-too-dangerous.pdf>), in the section entitled "Fracking, Health and Water Contamination" you will find the following two statements:

"The U.S. Government Accountability Office (GAO) has found a lack of protection for drinking water sources from fracking injection wells... stating "both short-term and long-term monitoring were lax."

"Waste water spills are a serious problem. The Associated Press (AP) analyzed data from leading oil- and gas-producing states and found that more than 180 million gallons of wastewater (was) spilled in 21,651 incidents over (just) five years (2009-2014)."

Therefore, the storage of fracking wastewater including the use of injection wells for fracking wastewater disposal should not be permitted in the DRB because the risk of ground and surface water contamination is too high and the risk to public health is unacceptable.

In summary, I believe the water of the DRB is a precious resource that fracking would turn into dangerous waste water which would then be difficult if not impossible to treat or dispose of safely. In addition, this contaminated water would be permanently removed from the water cycle. The water of DRB should not be diverted to facilitate fracking operations, and fracking wastewater should not be treated, stored, or allowed to pass through the DRB. To do so would risk severe and permanent contamination of our drinking water, endanger public health and, put the lives of our citizens at risk.

While the Haliburton rule is in effect, a list of substances for treatability studies that the oil and gas industry admits are present, would not be sufficient to protect the public health.

Thank you for your time and consideration of these remarks.

Respectfully submitted,

Dein Shapiro, MD

March 25th, 2018

Stockton, New Jersey