

Taylor Peck
Alpine, NY 14805-9716

February 28, 2011

Mr. Edward Hanlon
Designated Federal Officer
Science Advisory Board Staff Office
Environmental Protection Agency
hanlon.edward@epa.gov

Dear Mr. Hanlon:

This is my public comment on the EPA's "Draft Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources". First, I commend the EPA in their selection of the Advisory Board, and in the wide scope that this study is undertaking. I want to emphasize three aspects that need to be looked at closely in the upcoming study.

First is the issue of the additives that the drilling industry uses to make their fracking fluid. There must be total transparency in what is used, both in general and also specifically in each well at each fracking event. The drilling industry must not hide behind "proprietary formula secrets"; these additives need to be reported to the EPA, to the various state regulatory agencies, and to the public at large. The industry needs to pay for pre- and post- drilling and fracking tests, done at certified, neutral labs, on all neighboring water wells. The industry absolutely needs to stop using diesel fuel as a fracking fluid, as they "promised" the EPA they would do. Serious consideration should be given to the use of gelled propane for fracking (see the article in *New Technology Magazine* at <http://www.ntm.nickles.com/issues/printer.aspx?aid=1000225211>) a technology already being used in Canada that is more efficient than hydro-fracking and can significantly reduce air and water pollution.

Second is the issue of cement. Cement failure is a well-known, chronic problem in the drilling industry, and cement logs should be required for each job. How well will cement hold up under multiple hydro-fracks? Each time a well is re-pressurized for a frack job, the cement would be put at risk, as cement that has been stressed frequently has a higher failure rate. The EPA needs better data on the cumulative impact of intensive drilling on neighboring wells. With 8 to 12 vertical wells on a drill pad spaced approximately 20 feet apart, what happens to earlier wells when later ones are drilled? Do the vibrations damage the cement? Drillers in British Columbia report that wells drilled as far as 350 feet from each other can send lateral fractures into neighboring wells. Cement logs should be required for each job.

Third is the issue of radioactivity. All the black shales, and especially the Marcellus, are radioactive because of NORM. The drilling tailings, and especially the flowback fluids, sometimes have very high readings, from 100 to over 2,000 times the legal level allowed in drinking water. The EPA's own studies, among others (now

Taylor Peck
Alpine, NY 14805-9716

recently published by the *New York Times*) demonstrate this. Even some industry studies note the risk that radioactive water poses to our food supply and to the public health. Municipal water treatment plants are not even capable of handling the brine in flowback fluids, much less the radioactivity. Much more research, stringent regulation, monitoring, and reporting are required.

In summary, I am confident that the EPA's Hydraulic Fracturing Study will be based in good science, and will be thorough resulting in powerful regulations that protect our water and us. I thank you for your good work.

Sincerely,

Taylor Peck