



February 24, 2011

By Certified Mail, Return Receipt Requested
Copy by Email to hanlon.edward@epa.gov

Mr. Edward Hanlon
US EPA Science Advisory Board
Staff Office
Mailcode 1400R
1300 Pennsylvania Avenue, NW
Washington, DC 20004

Re: Draft Plan to Study the Potential Impacts of Hydraulic
Fracturing on Drinking Water Resources

Dear Mr. Hanlon:

Catskill Citizens for Safe, Energy, a volunteer grassroots organization intended to give residents a voice in the emerging energy decisions in the Catskills and Delaware River Basin, respectfully submits the following comments with respect to the above-referenced Draft Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources (the "Draft Plan").

First, we are concerned that the limited number of case studies, both prospective and retrospective, may insufficiently address the many variables which bear on the effects of hydraulic fracturing ("HF") on drinking water resources in the continental United States. These variables include, but are not limited to: (a) types of water supplies—ground, surface, well, reservoir, stream, river basin; (b) population density; (c) historical, present and future land use; (d) geographical/ topographical features; (d) weather and earthquake patterns; and (e) subsurface geology. It is unclear to us how a sample of 6-8 case studies can be sufficiently representative for a comprehensive analysis of the potential impacts of HF on drinking water given these variables.

Second, although the Draft Plan addresses various facets of water consumption and disposal, it omits any consideration of the effects of drilling cuttings and potential contamination from the storage and transportation thereof. These cuttings often contain heavy metals, metallic salts, naturally occurring radioactive materials and contaminants

Mr. Edward Hanlon
US EPA Science
Advisory Board
February 24, 2011
Page 2



used in the drilling process, such as lubricants, surfactants and biocides. In the process of extraction and storage, cuttings can contaminate ground and surface water through runoff. We believe this should be included in any comprehensive plan to study the effects of HF on water resources.

Third, in addressing water acquisition, the Draft Plan should consider seasonal weather patterns, water levels and water consumption, as well as local regulation, which may affect the availability of water for drilling, existing industries and for the general public.

Fourth, the current and reasonably anticipated technology of remediation should be addressed for all identified risks from HF. We understand, for example, that there is currently no method for decontaminating a contaminated aquifer. Is there any emerging technology which would provide meaningful remediation for this already-documented consequence of HF?

Fifth, we would respectfully submit that the Draft Plan should address current state regulation and its ability to address the process and risks of HF. In our area of the country, for example, New York and Pennsylvania have taken radically divergent regulatory paths. Various current and former Pennsylvania officials have suggested HF proceeded faster than regulation, leading to spills, contamination and injury to the Public Health, much of which continues to be under-addressed. New York does not yet have any regulatory framework in place while a de facto ban on HF continues until promulgation of rules. As a Federal entity, the EPA has the unique ability to examine and compare state regulation for effectiveness in preserving the environment, protecting the public health, as well as remediation of spills and contamination. This complements the analysis of current management practices discussed in the Draft Plan.

Sixth, given the amount of HF which has already been undertaken, the Draft Plan should address industry compliance with extant regulations both in terms of the level of adherence and the incentives to, manners and results of non-compliance. For example, documented instances of the use of diesel fuel in HF despite prohibitions are manifest. Why did this take place? How could it be prevented and if not prevented, detected? What level of governmental involvement at what stages of the HF process is necessary to ensure compliance with regulations?

Seventh, since the integrity of well construction is in issue over time, given the large volumes of HF fluid which will remain underground after extraction is complete, it

Mr. Edward Hanlon
US EPA Science
Advisory Board
February 24, 2011
Page 3



is unclear how the Draft Plan will address the ongoing effects of HF on drinking water resources over the intermediate and long terms. We are concerned that over the decades following stimulation, natural deterioration of well casings will allow subsurface migration of the approximately 80% of injected fluids which are not recovered in the drilling process including when each well is capped.

Respectfully submitted.

Thomas B. Wilinsky
Catskill Citizens for Safe Energy

