December 9, 2012

Elected Officials to Protect New York 10 Bailor Road Brooktondale, NY 14817

John Adgate, PhD, MSPH Chair, Occupational and Environmental Health Colorado School of Public Health 13001 E. 17the Place, B119 Bldg. 500, E3317A Aurora, CO 80045



Dear Dr. Adgate:

We are pleased that New York State's Department of Environmental Conservation has chosen someone with your qualifications to assist the State in making what we see as a fateful decision: whether high volume hydraulic fracturing with horizontal drilling is "safe" for our people and communities, and therefore whether to allow the practice in our state. We write you on behalf of *Elected Officials to Protect New York*, a group of more than 550 city and village mayors, town councilmembers, and county legislators from every one of New York's 62 counties. We write to express the profound fear and anxiety among New Yorkers about the irreversible damage this industry will bring to our communities. The most recent survey, released this week by Siena College, found that despite nonstop gas industry advertising in every possible venue, upstate New Yorkers – who would live with the drilling in their communities – oppose fracking by 45-39 percent. As noted by Robert F. Kennedy, Jr., "Those numbers surprise New York politicians who can generally count on the support of upstaters for virtually any industrial or commercial enterprise that promises even the faintest chance of economic development for New York's impoverished rural communities."

Unfortunately, these New Yorkers – our constituents – have lost faith in the haphazard, highly secretive process by which fracking is being decided here in NYS. So have we. With the recent release of revised draft regulations *before* the completion of the SGEIS or your own work, we wonder what role science is really playing in the decision-making process.

We feel compelled to share these doubts with you, as our fates are, quite literally, in your hands. The DEC and Governor Cuomo have made it clear that only a negative evaluation by the health consultants would cause them to decide fracking is not "safe" for New York.

Elected Officials to Protect New York wrote to Governor Cuomo in early June. The gist of the original letter, which we have re-sent several times, is the following:

"In a statement on September 24, 2011 you (Governor Cuomo) said, "My point all along is to **make the decision on hydrofracking based on the facts and on the science**." (emphasis added) We support this principle. However, the facts and the science currently leave many serious questions unanswered.

"Therefore, we respectfully urge you to maintain the *de facto* moratorium on high-volume hydraulic fracturing until the following independent assessments have been completed:

- A comprehensive health impact assessment of the entire shale gas extraction
 process, including but not limited to direct and indirect health effects and cumulative
 health impacts;
- A revised and properly thorough analysis that considers all potentially negative socioeconomic impacts, including but not limited to increased demands on local governments, first responders and law enforcement, and the effects of drilling on property values and home mortgages, existing businesses and economies, and local community character; and
- A revised and properly thorough study of cumulative impacts, including but not limited to the impacts on the rural landscape, water resources, air quality, and greenhouse gas emissions, and the lack of safe alternatives for wastewater disposal."

We have not heard back from the Governor. None of these studies has been done, or at least, not to the knowledge of the public. The closest that DEC has come is to hire you and your colleagues, for a maximum of 25 hours, to "review" DEC's work on the health impacts of hydrofracking.

However, the DEC refuses to tell the public what constitutes its review of the health impacts of this industry, or what your scope of work is. We can only assume that, with a mere 25 hours of contracted work, either their health review is a de minimus amount of material (out of the 4,000-page SGEIS), or you are only allowed a superficial review of their documents, or both. The public also deserves to know how narrow or broad is the task: Will you be allowed to raise any concerns not present in the materials you're given? Or will you be limited in your comments to evaluating what's put before you?

We strongly urge you to listen to these health professionals who have spoken out on this issue:

- Concerned Health Professionals of New York (http://concernedhealthny.org/letters-to-governor-cuomo/): "Commissioner Martens rightly refers to the need to establish the legitimacy of the regulatory process if the controversy that has engulfed shale gas fracking in New York is ever to be resolved. We suggest that you consider, in the face of the overwhelming recommendation of the medical communities of New York State that a Health Impact Assessment be undertaken, what the consequences would be if a credible one is not undertaken and fracking proves to be a health disaster. It will be impossible to contain the damage to the State's credibility and authority in this area."
- New York State Association of County Health Officials (see attached 1/12/12 report, p. 9): "NYSACHO urges the state to ensure that the private parties who stand to profit from gas drilling and sales will finance an expert, independent, and evidence-based study of potential public health impacts, preventive approaches to mitigate human health risks, and estimated related costs *prior* to lifting the moratorium on permits, with results available to NYSDOH, LHDs, the public and private medical care community, and the medical and public health research community."
- New York State Conference of Environmental Health Directors (see attached 1/5/12 report, p. 3): In addition to direct and secondary impacts of HVHF, "Indirect impacts are expected in areas such as health status and disease occurrence (e.g., physical maladies including but not limited to such conditions as endocrine disorders, cancers, respiratory, heart disease, and non-work-related accidents) and socioeconomic impacts affecting health (life style and social cohesion, education, crime, sexually transmitted infection, mental health and suicide, and substance abuse)."

• In addition, Catskill Citizens for Safe Energy has compiled a long list of resources on "Environmental and Health Risks", at http://catskillcitizens.org//learn_one.cfm?t=12&c=4.

"Our philosophy is to prevent human exposure"

On November 13, a group of us met with Commissioner Joe Martens and Deputy Commissioner Gene Leff; Bob Chinerey from the Department of Health joined in the meeting by phone. In discussing the health risks during that meeting, Commissioner Martens acknowledged that some impacts might not be seen for 30 years, and said "Our philosophy is to prevent human exposure." With all due respect, **if the DEC admits that it must** *prevent exposure* **to keep New Yorkers safe from fracking's ill effects, the DEC has admitted that fracking cannot be done safely.** Even assuming a perfect regulatory scheme, and a completely honorable and expert drilling industry, truck crashes and spills happen. Casing cements fail. Humans make mistakes. The only way to "prevent human exposure" is to not permit fracking in New York.

Elected officials are not scientists or physicians, but we have educated ourselves about this industry. We know there is no perfect regulatory scheme, and no completely honorable and expert drilling company. Beyond these flaws in the myth of "safe drilling," we are convinced that there are major threats to human health that cannot be mitigated, for example:

There *will* be exposure. For example, contamination of groundwater is just one mechanism of exposure; the level of risk depends on the integrity of the cement casing – whether or not the cement can contain migration of gases and fluids. Unfortunately, extensive industry-produced data show that the expected failure rate is approximately five percent initially, or one well in 20. This rate is expected to increase over time (p. 5, http://psehealthyenergy.org/data/dSGEIS_comments_Ingraffea_Jan_2012.pdf). A review of Marcellus well violations in 2010 and 2011 cited by the Pennsylvania Department of Environmental Protection confirmed the five percent rate of faulty casing and cementing practices (http://www.dep.state.pa.us/dep/deputate/minres/oilgas/OGInspectionsViolations/OGInspviol.htm).

Cementing failures do not always lead to contamination of underground water sources, but what odds are we willing to live with? Given the intensity of shale gas development, a five percent initial failure rate constitutes significant risk by itself, and it worsens with time.

The revised dSGEIS uses low to high development scenarios, projecting a range from 10,532 wells to 62,781 wells over a 30-year period. Multiply by five percent. If 527 to 3,139 wells will fail right away, is that acceptable? How can New Yorkers believe DEC's promise that their regulations will "prevent human exposure"?

Non-disclosure agreements have successfully shielded the industry from a true evaluation of its health impacts, as permanent silence is the price of compensation for a family whose drinking water has been fouled. Even the EPA has run into this roadblock: "Researchers...were unable to investigate many suspected cases (of drinking water contamination) because their details were sealed from the public when energy companies settled lawsuits with landowners...officials say this practice continues to prevent them from fully assessing the risks of certain types of gas drilling." (http://www.nytimes.com/2011/08/04/us/04natgas.html?pagewanted=all) Allowing an industry to operate with this level of secrecy is fundamentally no different from the syphilis experiments of the Tuskegee Institute.

There still is no protocol for disposal of fracking wastewater. It appears from the newly released regulations that DEC has made no progress in this critical area. They are still asking the industry for "Plan A" and "Plan B," with no explanation of what they would accept as a safe method for disposal. We believe this is because there actually *is* no safe method for disposal.

Radon exposure is a newly-emerging issue. It is present at Marcellus Shale gas well heads at a rate of 150-160 pCi/l. With a 15-20-hour transit time to New York City kitchens, exposure levels of radon in the NYC metro area will be about 125 pCi/l. This could result in a significant number of lung cancer deaths over time (http://www.damascuscitizensforsustainability.org/2012/05/new-yorkers-to-have-radon-with-dinner/). Additionally, a U.S. Geological Survey study found levels of radiation in wastewater from Marcellus Shale fracking operations 3,609 times more radioactive than the federal limit for drinking water and more than 300 times more radioactive than a Nuclear Regulatory Commission limit for industrial discharges to water (http://www.timesonline.com/news/local_news/as-gas-industry-heats-up-potentially-radioactive-waste-materials-are/article_a90de208-5c79-5d05-b89a-7468fc1de642.html).

Shale gas will exacerbate climate change. The effects of climate change will certainly threaten human health, and life itself, as we have seen in New York with three devastating storms in just the last 14 months.

New peer-reviewed research is leading to the conclusion that shale gas will have a greater greenhouse effect than conventional gas or other fossil fuels. For example, NASA climate scientist Drew Shindell's work, published in *Science*, shows that methane – natural gas – is 105 times more powerful than carbon dioxide as a global warming contributor over a 20-year time horizon, and 33 times more powerful over a century.

Unfortunately, unconventional gas drilling techniques – fracking – actually leak more methane than conventional ones. Leaks happen routinely during regular drilling, fracking and flowback operations, liquid unloading, processing, and along pipelines and at storage facilities. Estimates suggest fracking results in 3% to 200% greater leakage than from conventional gas wells (As with contamination issues, the imprecision in these numbers could be reduced if the industry were more transparent.). When it comes to global warming potential, production of gas from shale is more damaging than coal or oil.

On the November 2012 International Energy Agency report, spokesperson Michael Levi said, ""The report confirms that, given the current policies, we will blow past every safe target for emissions. This should put to rest the idea that the boom in natural gas will save us from that." (http://www.nytimes.com/2012/11/13/business/energy-environment/report-sees-us-as-top-oil-producer-in-5-years.html? r=1&adxnnl=1&adxnnlx=1354623973-G4+SBz4O1YBFWAJS7XpkXA&)

New Yorkers – our constituents – look to EOPNY for the answers they are not getting from DEC.

There is enormous confusion among our constituents about the DEC's recent actions. People are asking us, how can they release regulations when they haven't finished the SGEIS? And haven't they said they need the health review finished before they can complete the SGEIS? The backwards nature of this process and the complete lack of transparency raise serious concerns that politics rather than science is driving the process.

These concerns lead us to urge that the current draft of the SGEIS and the health review be made public and re-opened for public comment. In our November 13 meeting, Commissioner Martens said there have been substantial changes to and expansions of the SGEIS. They admitted that the 80,000 public comments on the first two drafts raised important issues and led to improvements in their understanding and in the document. Therefore we think the DEC should *want* the public's perspectives on the new and revised sections of the SGEIS.

The revised regulations that DEC released for public comment last week state (http://www.dec.ny.gov/regulations/87435.html): "The Department considered the denial of permits for HVHF, but while this alternative would fully protect the environment from any environmental impacts associated with HVHF, it would eliminate the economic benefits." What is the price of protecting our

The Commissioner acknowledged to us in our meeting that there is great fear of fracking among New Yorkers. The people do not trust the gas drilling industry, and if fracking is approved without public review and comment on your health review or the revised SGEIS, the people will not trust the DEC. Our many constituents across the state are left to wonder why the DEC is doing this review in secrecy and excluding New York's medical community, which has been carefully examining the impacts of fracking for years. As elected officials, this raises red flags for us. A process that New Yorkers don't trust can only yield a decision that New Yorkers don't trust.

With deep gratitude for your consideration,

On behalf of the more than 550 *Elected Officials to Protect New York*,

Kathie Arnold, Cortland County Legislator

Debra Brock, Town of Preble Councilmember (Cortland County)

Carl Chipman, Town of Rochester Supervisor (Ulster County) *

Carol Chock, Tompkins County Legislator

James Dean, Village of Cooperstown Trustee (Otsego County)

James Doring, Supervisor, Town of Preble Supervisor (Cortland County)

Dominic Frongillo, Town of Caroline Deputy Supervisor (Tompkins County)

Leah Golby, City of Albany Councilmember (Albany County)

Julie Huntsman, DVM, Town of Otsego Councilmember (Otsego County)

Kathleen Joy, City of Syracuse Councilmember (Onondaga County)

Jean Kessner, City of Syracuse Councilor-at-Large (Onondaga County)

Kevin Millar, Village of Owego Mayor (Tioga County)

Martha Robertson, Tompkins County Legislature Chair

Jane Russell, Town of Pulteney Supervisor (Steuben County)

Matt Ryan, City of Binghamton Mayor (Broome County) *

^{*} Names added after original letter was emailed on December 9, 2012