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December 30, 2009

Attn: DSGEIS Comments
Bureau of Oil & Gas Regulation
NYSDEC Division of Mineral Resources
625 Broadway, Third Floor
Albany, NY 12233-6500

Sent by regular mail & email to dmnsgeis@gw.dec.state.ny.us

Re: Draft SGEIS for Marcellus Shale Gas Drilling

The Governor and the DEC promised a detailed look at the potential impacts of dramatically increased gas drilling in the Marcellus Shale using new technology. SEQRA also requires a hard look at potential environmental impacts. Unfortunately, despite voluminous numbers of pages, there is only a careless, superficial, even dishonest review contained in this Supplement to the 1992 GEIS. We have chosen only a few of the many important issues to highlight.

Conflict of Interest

DEC, a beleaguered agency, its staff decimated by years of budget cutbacks should have simply admitted it didn't have the staff or resources to complete such an important analysis as completing an EIS for a project of this magnitude. Instead it relied on a great deal of work produced by the industry to be regulated or their consultants, including work contracted by NYSERDA. Relying on the industry to be regulated for information related to potential environmental impacts is a clear conflict of interest.

Adequate resources to regulate expanded Gas drilling were not documented.

Beyond a clear failure to take a hard look at the environmental impacts as required under SEQRA, there is no look at the economics of the situation. NY is suffering under the weight of a severe budget crisis that has exacerbated long standing staff shortages at DEC. DEC can actually attend to only a portion of its mandated duties—what portion has not even been qualitatively described and remains a complete unknown to the public that relies on these essential services. In the face of the realities of the staffing situation it is impossible to accept the numerous false assurances contained in this SGEIS. However, we have none of the economics related to this drilling and the promises of adequate oversight and permitting, because there was no economic analysis regarding what industry would pay for drilling and how such fees would support an

adequate inspection, oversight and enforcement force at DEC. One example is that currently constituted drilling fees are based on vertical wells nor horizontal ones. It is also not clear to what extent the Emergency Fund could be used for remediation of harm.

If DEC didn't have sufficient staff to do a proper EIS, they certainly don't have the staff to regulate dramatically expanded gas drilling. The public has to face the realities on the ground, in their communities, and with a very limited environmental workforce to prevent serious harm. The public has to deal with the real world, not the fantasy presented by this SGEIS.

Obligations under the Law have not been met.

The State and DEC have an obligation to fulfill their mission and mandates under the ECL as well as under SEQRA. In addition, the role of government under the public trust doctrine should be a prominent consideration in a matter as serious as the one before us. The State of Pennsylvania assumes that water contamination of wells comes from drilling unless proven otherwise. New York should adopt the same policy.

A very important part of any proposed project or action is a thorough description. DEC fails to provide an adequate description of the proposed action. It is presented in one short paragraph at the beginning of Chapter 2. See below.

Chapter 2 DESCRIPTION OF PROPOSED ACTION

The proposed action is the Department's issuance of permits to drill, deepen, plug back or convert wells for horizontal drilling and high-volume hydraulic fracturing in the Marcellus Shale and other low-permeability natural gas reservoirs. This SGEIS is focused on topics not addressed by the original GEIS, with emphasis on potential impacts associated with the large volumes of water required to hydraulically fracture horizontal shale wells using the slick water fracturing technique and the disturbance associated with multi-well sites.

This SGEIS was for dramatic expansion of drilling in large areas of the state using new technology – yet in the only place where there should be a reasonable summary of the proposed action, we found only a short paragraph. Below is an excerpt of a longer presentation of the proposed action on DEC's website related to this action:

“Hydraulic fracturing is not new. Nor is horizontal drilling. What is new is the combined use of these techniques to extract gas from deep shale layers such as the Marcellus and Utica formations in New York, and the extraordinary amounts of water and "flowback," with its attendant chemicals, that must be managed in the process.”

This is both a more honest presentation of the relevant issues at hand and one that might have resulted in better answers to the public's concerns. The proposed action should have been described here in detail and then there should have been a description of what issues were covered in the 1992 GEIS and what specific issues would be covered in this new Supplement—not forcing a reader to try to manage materials from 17 years ago.

Beyond the failure to adequately describe the action, there are numerous instances where clever language serves to hide the fact that there was no analysis at all. On p. 5- 65, DEC tells us that DOH didn't identify any exposure scenarios that were qualitatively different than those identified in the 1992 GEIS. (Underlining ours.)

Conclusions

The hydraulic fracturing product additives proposed for use in NYS and used for fracturing horizontal Marcellus shale wells in other states contain similar types of chemical constituents as the products that have been used for many years for hydraulic fracturing of traditional vertical wells in NYS. Some of the same products are used in both well types. The total amount of fracturing additives and water used in hydraulic fracturing of horizontal wells is considerably larger than for traditional vertical wells. This suggests the potential environmental consequences of an upset condition could be proportionally larger for horizontal well drilling and fracturing operations. As mentioned earlier, the 1992 GEIS addressed hydraulic fracturing in Chapter 9, and NYSDOH's review did not identify any potential exposure situations associated with horizontal drilling and high-volume hydraulic fracturing that are qualitatively different from those addressed in the GEIS.

We agree that the analysis of potential health impacts was far more thorough in the 1992 GEIS, however, that EIS was talking about fracturing water quantities of 20,000-80,000 gallons, not the quantities proposed with the newer technologies. Thus it is deceptive to merely say that the potential environmental impacts could be "proportionally larger" and also say that DOH did not identify any exposure situations that are qualitatively different. As a nurse, I assure you that a lethal dose or exposure is both qualitatively and quantitatively different to the person and family affected, than a smaller dose. While you obviously want to split hairs over the difference between quantitative and qualitative, an EIS is supposed to adequately cover and disclose both kinds of impacts to the public. As a result of the sleight of hand here, neither were covered.

In point of fact DOH did no exposure analysis as clearly stated on p. 5-61. DOH instead suggests that it would need all the specifics of a particular exposure situation and then it would run the exposure assessment.

This violates the clear intent of SEQRA to review and analyze potential environmental impacts, so they can be avoided. Similarly a long history of public health practice and policy demands attention to PREVENTION. This SGEIS should have carefully looked at the additives proposed for use and operating with the precautionary principle in mind, identified those with the most serious hazardous properties – PBTs, carcinogens, mutagens, reproductive toxins, endocrine disruptors, etc. – and proposed that they be excluded for use. Since it is clear that not all of the potential additives are used each time, THERE IS A CHOICE and AN OPPORTUNITY TO USE SAFER CHEMICALS HERE. We know that DEC and DOH are both engaged in state efforts to promote the use of safer chemicals and the elimination of the use of hazardous chemicals. How then was it possible to ignore the application of the same principle here?

None of this discussion is meant to imply that if only safe additives are used this process can be done safely. We also note that DOH's letter of July 21st, which had an extensive discussion of radioactive contaminants in the Marcellus Shale, was not included in the Appendices.

Emergency Planning and Community Right-to-Know Act (EPCRA)

We believe that this law requires the reporting of reportable quantities of certain hazardous substances and that it applies to gas drilling. However, given the fact that DEC is not taking the required hard look at this situation, we fear you may be allowing reportable quantities of hazardous substances to be dumped into streams and injected underground on a regular basis. But you did no analysis to ensure that we are not talking about reportable quantities here.

Greenhouse Gas Emissions

Apparently the analysis here relied heavily on work completed by the industry- GRI and API with results that are not surprising.

The most significant GHG emissions from natural gas production facilities are Methane, CH₄, from leaks in drilling and other equipment on site at the drilling operation. However, such fugitive emissions were not quantified or included in the estimates in the EIS, because industry said they are not a problem. This is particularly disturbing giving the greater global warming potential of methane as compared to CO₂.

Given the large distances involved in horizontal drilling, and the reports of natural gas bubbling into ponds, wells and generally escaping through fissures in the ground, the escape of methane needs to be given far more attention, in the form of a serious study.

Serious Potential Impacts will be studied at some time in the Future. That means the EIS is not finished.

While we have in many cases a flippant, careless analysis of serious issues, in other places DEC tells us they are currently reviewing a particular problem, but are not finished yet. Obviously this means the EIS is not done. It is not complete. The public needs full disclosure in order to provide comment. Here is one such instance: p.7-6

Aquifer Depletion

The concern for aquifer depletion due to increased ground water use in New York currently is being reviewed and addressed by the DEC. The Department's Division of Water's Pump Test Procedures for Water Supply Applications in conjunction with the SRBC's aquifer testing protocol will be used to evaluate proposed groundwater withdrawals for high-volume hydraulic fracturing.

As a result of the overall terribly deficient, SGEIS, we believe that the only thing that can be supported by these documents is for DEC to proceed on a pilot basis only in order to complete the needed analyses and produce a new SGEIS. Otherwise this document needs to be withdrawn and the DEC needs to start over.

Pilot Studies

The only thing that this SGEIS appears to document and support is the need to proceed cautiously (if at all) through the use of pilot studies in which a great deal of data collection and study is conducted. A company authorized to proceed under pilot authorization should have to:

- 1) put up a minimum of a million dollar bond for potential site, ground and surface water and other damages (more depending on the scale of the operation)
- 2) thoroughly document the existing state of ground and nearby surface waters through characterization studies. The SGEIS has failed to adequately describe what would constitute the “affected area” for a typical drilling project, thus making it difficult to understand how DEC derived the particular supposed “protective” distances to wetlands, water supplies, etc. Perhaps the pilot studies could help define the affected area.
- 3) Fund studies of fugitive leaks of methane gas from equipment and from any ground releases through fissures or other pathways. Quantify greenhouse gas emissions.
- 4) Fund studies of injected water, flow back water- quantities and presence of contaminants and additives, including radioactive materials
- 5) Fund studies of solids- cutting materials, drilling muds etc and presence of additives and contaminants and the apportionment of these materials between liquid and solid wastes, including radioactive materials.
- 6) Fund and study safe waste disposal options
- 7) Fund studies of seismic events.
- 8) Longer term monitoring for potential impacts on ground and surface water

Use care to document results Pre and Post of any inspections or surveillance. Assume that extra caution is being used because of the pilot nature of the program and that substantial oversight will be needed in the future.

Beneficial Use Determinations for any Liquid or Solid Materials from Gas Drilling are not appropriate to authorize at this time without more study of these materials. Proposing to spread this material on roadways with testing for only a few constituents is unacceptable.

Lastly we believe that the DSGEIS documents that the State is proposing to violate its own regulations for mining. We cite the relevant provisions below and urge the DEC to reconsider its actions.

§554.1 Prevention of pollution and migration

(a) The drilling, casing and completion program adopted for any well shall be such as to prevent pollution.

(b) Pollution of the land and/or of surface or ground fresh water resulting from exploration or drilling is prohibited.

§556.5 Pollution and disposal

(a) Pollution of the land and/or surface or ground fresh water resulting from producing, refining, transportation or processing of oil, gas and products, or in connection with solution mining, is prohibited.

Thank you for your attention. We wish to be kept informed of future developments.

Sincerely,

A handwritten signature in black ink that reads "Barbara J. Warren". The signature is written in a cursive style with a large initial "B".

Barbara J. Warren
Executive Director