January 24, 2014

Donald Milton, MD, DrPH
Maryland Institute for Applied Environmental Health
School of Public Health
University of Maryland
College Park, MD 20742-2611

Dear Dr. Milton:

Chesapeake Physicians for Social Responsibility appreciates the opportunity to comment on the draft scoping report, *Potential Public Health Impacts of Natural Gas Development and Production in the Marcellus Shale in Western Maryland*. We would like to thank the Maryland Institute for Applied Environmental Health for their hard work in producing this scoping document under a very tight timeframe.

In our comments, we recommend that the authors develop a new statement of purpose; that the report contain a separate section or appendix with information on the chemicals used in the HVHF process; that report contain a separate section on the limitations of the report; and that the timeline be extended for public comments on the health study and for Marcellus Shale Safe Drilling Initiative Advisory Commission’s development of its final report.

1. A New Statement of Purpose

We recommend that the authors develop a new statement of purpose. The draft scoping report currently states: “The Impact Assessment will provide estimates of the health consequences of allowing horizontal drilling and high volume hydraulic fracturing (HVHF), under a range of realistic economic and regulatory scenarios, for the Maryland Department of the Environment (MDE), the Department of Natural Resources (DNR), and the Marcellus Shale Advisory Commission to use in making policy recommendations.”

For the reasons stated in the following two sections of our comments, we do not believe it will be possible for the authors to provide actual estimates of the health consequences of HVHF in most scenarios. Consequently, we recommend that the report inform decision makers on the broad range of actual and potential risks associated with hydraulic fracturing and that it offer recommendations to address these risks, including establishing monitoring...
frameworks, identifying data gaps and recommending procedures to increase data availability and transparency.

2. Greater Information on the Chemicals Used in HVHF

To address shortcomings in our knowledge about the chemicals used in the HVHF process, we recommend that the report contain a section or an appendix that lists the chemicals that are known to be used in the HVHF process, the availability of toxicological profiles, epidemiological studies and exposure data on these chemicals, and the detection methods available for determining the presence of these chemicals in the environment.

We agree with the scoping assessment that, "Because the HVHF technique is relatively new, the composition of HVHF fluids are often proprietary, and the physical form of specific agents (e.g. use of nanosilica and other nanomannufactured forms of common chemical compounds) may not be accessible, it will be important for the impact assessment to consider that the lack of data concerning causal associations with long latency diseases from unknown agents will impart a high degree of uncertainty into the assessment." (p.18)

However, we are concerned that the scoping paper does not state specifically how it will address the entire range of the information problems with respect to the chemicals used in hydraulic fracturing. Over the life of a well, over 100,000 gallons of chemical additives may be injected into the ground. Some are known to be safe, others are known or suspected carcinogens endocrine disrupters, or are otherwise toxic to humans, including silica, benzene, lead, ethylene, glycol, methanol, boric acid and gamma emitting isotopes. In many instances, there appears to be little or no toxicological or epidemiological information on the chemicals. In many states, as the scoping paper notes, companies are allowed to keep the identity and mixture of some of their fluids as proprietary trade secrets. In some instances, it appears that local and state officials may not know how to test for the presence of some of these chemicals in the environment.

We believe compiling this information is critical to the integrity of the report, especially in light of the chemical spill of Crude MCHM and PPH into the Elk River in West Virginia. The U.S. Centers for Disease Control has noted that data about the potential health effects of the two chemicals spilled in the Elk River are "very limited." The release of PPH into the Elk River was never detected by authorities and only revealed by the company days after the spill of Crude MCHM. In addition, the company has claimed the exact identity of the substance PPH as "proprietary." This situation underscores the need for this impact assessment to properly ascertain what we know and do not know about the health risks posed by these chemicals and the methods available to detect the presence of HVHF chemicals in the environment.

3. A Section on Limitations

We believe that the report should contain a stand-alone section that addresses limitations on the report’s scope. Given the time and funding limitations, this could be one of the most valuable contributions of the study. This section should address limitations caused by time and resource constraints, as well as limitations caused by a lack of data or the lack of an agreed upon methodology for analyzing that data. This section would provide important context for policy makers and help identify areas that would benefit from further research.
Many of these limitations are already mentioned in the different parts of the draft scoping report.

In addition, that there are a number of uncertainties in the HVHF process that do not appear to be adequately addressed in the scoping document. Among these uncertainties are the long-term structural integrity of the systems used to extract natural gas and store chemicals and wastewater, the lack of longitudinal studies related to human and animal exposure at low or chronic levels, and, as noted above, the lack of toxicological and epidemiological information on many of the chemicals used in the HVHF process, and their detection methods. These uncertainties are compounded by the lack of public health data from states that currently allow HVHF.

4. Timeline Extensions

We are concerned that the work plan provided in the scoping report does not provide adequate time for the public to comment on the draft health impacts report and for the Marcellus Shale Safe Drilling Initiative Advisory Commission to consider the report’s recommendations. The draft scoping report provides a thirty-day public comment period in June, which we believe is insufficient given the range and complexity of the issues being covered. We recommend that the comment period be extended to 60 days, to insure adequate discussion and public consideration of the issues.

In addition, we recommend that the Commission extend its August 1 deadline for completing its report and making its finding and recommendations on the impacts of HVHF. It is inconceivable that the Commission can adequately consider in a 30-day period the report’s findings and recommendations, agree on its own finding and recommendations, and produce a report that addresses the issues raised in the health study.

Thank you again for the opportunity to comment on this report.

Sincerely,

Tim Whitehouse, Director
240-246-4492
twhitehouse@psr.org