August 29, 2013

Brigid E. Kenney  
Senior Policy Advisor  
Maryland Department of the Environment  
1800 Washington Blvd.  
Baltimore, MD 21230

Dear Ms. Kenney:

On behalf of the Chesapeake Chapter of the Physicians for Social Responsibility, I appreciate the opportunity to comment on the Draft Marcellus Shale Safe Drilling Initiative Study: Part II Best Practices. The Chesapeake Chapter would like to thank the Maryland Department of Environment (MDE) and the Department of Natural Resources (DNR) for the hard work they have put into producing this document.

The health professionals of the Chesapeake Chapter are concerned about the multiple threats to human health posed by the technologies and processes associated with hydraulic fracturing. These threats to health include industrial-scale water consumption and contamination; air pollution, particularly by volatile organic compounds (VOCs) and methane; acceleration of climate change caused by methane leakage; seismic effects, and the generation and management of large quantities of toxic liquid waste.

A small but growing body of literature documents serious threats to human health, animal health, air quality and drinking water quality arising from hydraulic fracturing. In light of these threats, we have outlined below three of the major concerns we have with the draft best management practices, and provided specific recommendations on how MDE and DNR could address these concerns. Our concerns and recommendations are:
(1) There is no scientific basis to support these BMPs

The practices outlined in this report are not based on a scientific assessment of likely impacts of natural gas production in the Marcellus Shale in Maryland. As a result, this report does not fulfill Governor O'Malley's 2011 Marcellus Shale Safe Drilling Executive Order (E.O. 01.01.2011.11), in which the Governor directs MDE and DNR to determine whether and how gas production from the Marcellus Shale in Maryland can be accomplished without unacceptable risks of adverse impacts to public health, safety, the environment, and natural resources.

These BMPs are a collection of practices that have been gathered -- and sometimes modified -- from other states, and from existing rules in Maryland. MDE and DNR have not established that these practices, if implemented, would allow unconventional natural gas production from shale to occur safely in Maryland. Compounding this oversight, MDE and DNR have published the draft best management practices prior to the development of the Department of Health and Mental Hygiene's (DHMH) health study on the effects of unconventional natural gas production as well as MDE's and DNR's risk analysis of this type of natural gas production in Maryland, both of which will not be completed until around August 2014. Unfortunately, MDE and DNR have not indicated how the results of the health and risk studies will inform the final draft of the BMPs and have indicated there will be no opportunity for medical and public health professionals to comment on the draft BMPs after September 10, 2013. This process unnecessarily impedes discussion of the underlying rationale that will be used to develop the final BMPs.

Recommendation 1.1: MDE and DNR should finalize the BMPs only after taking into account the findings in the State's health study and the risk analysis. In addition, they should provide the public with an additional opportunity to comment on the final set of BMPs after the public release of the final health study and the risk assessment.

Recommendation 1.2: The final BMPs should contain a science-based process to reassess and reevaluate periodically the BMPs to ensure that they reflect improvements in our understanding of the practices used to address the health risks in the hydraulic fracturing process.

(2) These BMPs would hinder the work of medical and public health professionals

These BMPs would hinder the work of medical and public health professionals to protect Marylanders from harm, in at least two ways. First, they adopt the hazardous communication standard for trade secrets from the
Occupational Safety and Health Administration (OSHA), effectively establishing a “doctor’s gag rule” in Maryland. Secondly, they fail to address the appropriate use of health-related confidentiality agreements between industry and landowners.

The use of OSHA trade secret rules and the use of confidentiality agreements work to keep information from regulators, policymakers, health care professionals and the news media, and make it difficult to assess the effects of gas production on public health and the environment. Exposure data on the chemicals used in hydraulic fracturing has been difficult to obtain. Without exposure data, a useful risk analysis of a practice or material cannot be conducted. Continuing gag rules and non-disclosure statements makes it even less likely useful exposure data can be obtained to accurately characterize the risk to human health.

Under OSHA’s hazardous communication standards for trade secrets, if a treating physician or nurse determines that a medical emergency exists and the specific chemical identity and/or specific percentage of composition of a hazardous chemical is necessary for emergency or first-aid treatment, the company will be required to give the treating physician or nurse the name, identity and composition of the trade secret chemical. However, the medical professional may be required to sign a confidentiality agreement prohibiting them from sharing the information with others. In non-emergency situations, the procedures are even more difficult for medical professionals. OSHA standards establish a cumbersome and onerous process that health care professionals must go through in order to obtain the name of a trade secret chemical, and if they succeed in that process, they may also need to sign non-disclosure agreements. This creates barriers to patient treatment that may result in the inability of physicians, nurses and other health care practitioners to safeguard their patients as their professional commitment and obligations require them to do.

In addition to establishing a gag rule in Maryland, these BMPs do not address confidentiality agreements between drillers and property owners. Recent press reports highlight the widespread use of non-disclosure agreements between drillers and landowners, which require landowners to keep quiet about instances in which natural gas production has harmed the landowners’ water and potentially caused health problems.\(^1\) This barrier to the sharing of information about health and harm may result in the inability of public health

professionals to identify threats to health and work proactively to protect the public.

**Recommendation 2.1:** The BMPs should require that companies provide DHMR and MDE with toxicological profiles and epidemiological evaluations of chemicals and agents used in the production of natural gas to ascertain possible acute, subacute and chronic health effects of exposure to such substances.

**Recommendation 2.2:** Chemicals and other agents used in the extraction of natural gas should not be subject to restrictions on disclosure under trade secret rules.

**Recommendation 2.3:** The BMPs should require that drilling operations report chemical releases to the federal Toxic Release Inventory, or to a publicly accessible on-line database managed by the state.

**Recommendation 2.4:** The BMPs should establish one process that would allow Maryland’s health professionals to expeditiously obtain information needed to treat patients in emergency and non-emergency situations, and, in such instances, the BMPs should explicitly state that the recipient of that information is not required to sign non-disclosure agreements.

**Recommendation 2.5:** The BMPs should prohibit the use of non-disclosure agreements between drillers and landowners that restrict the ability of parties to disclose environmental or health issues associated with natural gas production.

(3) **These BMPs would allow dangerous increases in greenhouse gas emissions.**

These BMPs would allow for dangerous increases in methane gas, a potent greenhouse gas that will cause 21 times as much warming as an equivalent mass of carbon dioxide over a 100-year time period. Climate change contributes to a number of harms to health, including dangerous heat waves, extreme weather events, increases in the range of diseases, decreases in food production, and more. While the BMPs make a number of recommendations on steps to reduce methane leakage, they do not prohibit methane venting and do not explicitly require a zero percent methane leakage rate.

**Recommendation 3.1:** These BMPs should require zero percent methane leakage.

Because of the wide-range of health and environmental impacts associated with the extraction of natural gas from shale formations, we would like to highlight our
request that MDE and DNR allow the public to comment on a final draft of the BMPs, which should only be issued after completion of the health study and risk assessment. This will allow our Chapter to make more informed comments on all aspects of the BMPs in light of the findings of those two studies. While we recognize that these BMPs contain a number of improvements on the practices that are occurring in many other states, they are not currently based on sound science and will require significant revisions for the state to achieve the goals set forth in Governor O’Malley’s Executive Order to protect the public’s health.

On behalf of the more than 500 health professionals who live and practice in Maryland, thank you for considering the comments of the Chesapeake Chapter of Physicians for Social Responsibility.

Sincerely,

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