

August 12, 2011

Cheryl Suttman
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RE: Draft Model General Permit and Qualifying Criteria

Dear Ms. Suttman:

We, the undersigned groups, appreciate the opportunity to comment on the draft model general permit and qualifying criteria regulations.

The Ohio Environmental Council is a state-wide 501 (C)(3) organization whose mission is to secure healthy air, land, and water for all who call Ohio home. The OEC has a widely respected 40-year history of innovation, pragmatism, and success. The OEC has thousands of members throughout the state and over 100 group members.

The Buckeye Forest Council (BFC) is a membership-based, grassroots 501(C)(3) organization dedicated to protecting Ohio's native forests and their inhabitants. We seek to instill in Ohioans a sense of personal connection to and responsibility for Ohio's native forests and to challenge the exploitation of land, wildlife and people.

Center for Health, Environment and Justice (CHEJ) was founded in 1981 by Lois Gibbs, the community leader at the infamous Love Canal hazardous waste site who led efforts to demand and win permanent relocation for 900 families. That victory also resulted in the establishment of the federal Superfund program to clean up similar toxic sites across the country. Since 1996, CHEJ has collaborated with and provided technical assistance to more than 1,700 Ohio individuals and community groups facing environmental health threats, both in industrial towns and cities and rural areas.

There has been much investigation and anticipation into how much natural gas lies in the Utica and Marcellus shale deposits. As the Agency moves forward, it must make sure that our environment and our communities are not lost in the rush to horizontal drill.

Emissions from oil and gas drilling, storage and transportation can impact the health of our communities. These harmful emissions from oil and gas operations may increase a county's overall emissions which could mean it fails federal air quality standards from ozone and particle pollution. The oil and gas sectors are responsible for 40% of all U.S. methane emissions. Methane is a significant VOC and contributor to ozone formation. The oil and gas sectors are the largest source of VOC emissions in the country. Consequences of failing the standards means economic requirements such as county emissions off-sets, mobile vehicle inspections, and the possibility of having federal highway funds withheld. Currently almost one-third of Ohio counties are failing the PM 2.5 standard, and many counties will likely fail the new ozone standard when it is announced.

Request for Additional Time to Respond.

The Agency's draft rules are very detailed and complex. We appreciate the Agency wanting to get regulations in place before a flood of applications are submitted. However, extending the Interested Party comment period by two weeks should not unduly delay the current process. Additional time can mean a thorough approach in which all scenarios are prepared for.

General Permit versus Individual Permits.

It is our understanding that there will be many applications submitted to the Agency to begin drilling. A General Permit may be appropriate for small-scale drilling, but medium to large scale drilling should be required to apply for an Individual Permit. Local communities deserve the right to comment on specific proposed sites in their area that could be damaging to their property and the air they breathe.

Permitting of Drilling and Fracturing Activities.

The OEPA Natural Gas Well GP Transmission Letter states that drilling and fracturing activities will be exempt from air permit requirements.

Based on the result of our rule analysis, our belief is that the typical activities that occur during the drilling and fracturing phase at a well site are exempt from any air pollution permit requirements. This is mainly because the equipment used (and the resulting air emissions) are temporary and are exempt from permitting requirements because they are temporary.

However, the well completion stage in shale gas operations is the source of much of the fugitive methane and other air pollutant emissions during the life-time of a well. In fact, it is specifically this aspect of the shale drilling process that gives it a considerably larger GHG (and presumably VOC and toxics) footprint than conventional gas production.

The undersigned groups encourage Ohio EPA to review the recently released "Cornell Study," which examined fugitive methane emissions from shale gas operations. Howarth, et al., "Methane and the Greenhouse-Gas Footprint of Natural Gas from Shale Formations: A Letter," (Cornell University 2011). A copy of the Cornell Study is enclosed with this letter. According to the study:

[Shale well] methane emissions are at least 30% more than and perhaps more than twice as great as those from conventional gas. The higher emissions from shale gas occur at the time wells are hydraulically fractured and during drill out following the fracturing.

[...]

The footprint for shale gas is greater than that for conventional gas or oil when viewed on any time horizon, but particularly so over 20 years. Compared to coal, the footprint of shale gas is at least 20% greater and perhaps more than twice as great on the 20-year horizon and is comparable when compared over 100 years.

Specifically, the Cornell Study found that, "3.6% to 7.9% of the methane from shale-gas production escapes

to the atmosphere in venting and leaks over the life-time of a well.” The study worked with a conservative estimate of fugitive emissions during the shale well completion stages and found that nearly 2% of all gas produced during the lifetime of a shale operation escapes into the atmosphere during this early stage: “Combining losses associated with flow-back fluids (1.6%) and drill out (0.33%), we estimate that 1.9% of the total production of gas from an unconventional shale-gas well is emitted as methane during well completion.” However, data examined by the study suggested a higher-end rate for well completion emissions (3.2% for flow-back and .62% for drillout).

OEPA should require permitting for the drilling and fracturing stages of shale gas operations because they are a highly significant source of fugitive emissions.

In addition, horizontal shale wells are often repeatedly drilled to create multiple horizontal bores. Shale wells are also frequently “re-fracked” several times during their lifetime – a recurring process to re-stimulate production. This fact calls into question OEPA’s statement that drilling and fracturing activities are “temporary.”

Diesel Emission Standards.

We request that any on-road, heavy duty, diesel or alternative fueled powered engine that will be on site for more than five days be required to meet the 2007 EPA on road diesel emission standards. This can be achieved by purchasing newer engines or by installing emission controls on pre-2007 vehicles. Additionally, all non-road diesel powered engines should be required to meet tier 3 standards for PM and NOx emissions or should be required to have an emission control device on the vehicle that reduces pollution by 85% or best available control technology. On site heavy duty off road and on road diesel engines should not be allowed to idle their engines for more than 5 minutes when the temperature is between 32 degrees-85 degrees F.

Questions.

Currently the U.S. EPA is developing rules to govern horizontal oil and gas drilling. Is the Agency going to wait and see what the federal rules are before moving forward with state regulations? If not, how will the Ohio EPA resolve any potential conflicts with the federal rules? Has the Agency looked at categorizing the anticipated sizes of the drilling sites into small, medium, and large in order to develop specific regulations for each one versus a one-size-fits-all approach? What pollution reduction technologies will be required? What kind of monitoring procedures and/or equipment is being contemplated? Why were air toxics not modeled; how does OEPA know that they will be less than 1 tpy?

We appreciate this opportunity to comment on these important draft regulations. Before Ohio’s lands are opened up for horizontal drilling it is imperative that the Agency move forward in a methodical manner and take time to implement rules that protect our environment and our communities.

Sincerely,

Nathan Johnson, Buckeye Forest Council
Teresa Mills, Center for Health, Environment and Justice
David R. Celebrezze, Ohio Environmental Council