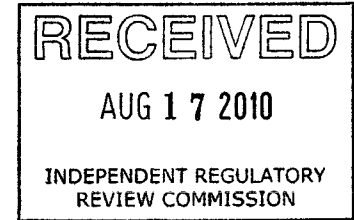


Cooper, Kathy

From: Wanda Skalba [wanda.skalba@gmail.com]
Sent: Friday, August 06, 2010 3:09 PM
To: EP, RegComments
Subject: Gas wells rulemaking
Attachments: Gas wells PA DEP.doc



Re: PROPOSED RULEMAKING

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CH. 78]

Oil and Gas Wells

The proposed rulemaking does not address items required to protect Pennsylvania residents from water, air and noise pollution.

Summary

Hydraulic fracturing, as it is practiced at this time, is a dangerous technology that should be banned. There is plenty of evidence that it poses serious dangers to human health and environment. It should never be allowed in the Delaware River Basin. Pennsylvania should ban hydraulic fracturing at least until the US EPA completes its study on this subject. If hydro fracking is not banned, the drillers should never be allowed to use the toxic chemicals, such as benzene or diesel fuel, that they are using now. Also, if allowed, hydraulic fracturing should never be permitted closer than one mile away from private water wells and homes.

Toxic chemicals used in hydraulic fracturing

In his letter about the FRAC Act to Speaker Pelosi NY Representative Maurice Hinchey wrote:

“I have had deep concerns about the environmental and public health risks associated with hydraulic fracturing. The drilling process involves injecting into the ground millions of gallons of water laced with chemicals, some of which are known to be toxic. There are numerous reports that the practice has contaminated drinking water and surface water supplies, and negatively impacted air quality.

The House Energy and Commerce Committee has initiated an investigation into whether natural gas drilling companies are abiding by a 2004 voluntary agreement not to use diesel fuel in their fracturing fluids. Preliminary reports indicate that companies have broken their commitments.”

Since it is already known that hydraulic fracturing poses danger to health and environment PA DEP should put a ban on it until the US EPA study is completed. If that is not done, PA DEP should immediately require that no toxic substances such as benzene or diesel fuel are used in the process.

Water contamination with toxic chemicals

A July, 2010 Scientific American article *The Drillers Are Coming* makes several very alarming points and implies that drilling for natural gas threatens to pollute water supplies:

1. “Enormous volumes of water and chemicals are forced down the wells and fouled water flows back up, picking up from the shale heavy metals and naturally radioactive materials. Going down, the fluid is about 0.5 percent chemicals. The chemicals include hydrochloric acid, ethylene glycol, glutaraldehyde, methanol, and petroleum distillate blend. 25,000 to 250,000 gallons of chemicals are used per well.” (Since thousands of wells are planned for construction in Pennsylvania within the next couple of years millions of gallons of chemicals would be injected into these wells and a significant portion of them would remain there)
2. “The Endocrine Disruption Exchange, led by Theo Colborn, a former EPA science adviser, determined that the chemicals could cause damage to the lungs, liver, kidneys, blood and brain”
3. “According to Anthony Ingraffea, a professor of engineering at Cornell University who has a PhD in rock fracture mechanics, the chemicals could find their way up to groundwater.” He says that in the wells constructed with the hydraulic fracturing method “the space between the wider bore and the narrower pipe is not uniform; the bore intersects voids, fractures and cracks and sometimes cement does not fill those features”
4. It is also unclear how long the cement used in the construction of gas wells will last
5. “The flowback fluid can leak at the wellhead. High pressures can cause malfunctions at the surface”
6. “Another problem involves leaks from poorly built or lined holding ponds into which the drilling fluids with the chemicals are sprayed. When the entire hydraulic fracturing operation is considered, including wastewater holding ponds, hundreds of contamination incidents have been documented. In Dimock, PA, the DEP cited Cabot Oil & Gas for spilling fracking fluid and diesel.”

The NYC DEP study completed in December of 2009

In December, 2009 NYC DEP retained the Joint Venture of Hazen and Sawyer, an environmental engineering firm, and Leggette, Brashears & Graham, a hydrogeologic and environmental consulting firm, to perform an assessment of impact of hydraulic fracturing in the NYC watershed. Here are some excerpts from that study:

“Intensive natural gas well development in the watershed brings an increased level of risk to the water supply: risk of degrading source water quality and the risk of exposing watershed residents and potentially NYC residents to chronic low levels of toxic chemicals.

In addition to surface risks to the watershed, extensive hydraulic fracturing of horizontal wells will present subsurface contamination risks via naturally occurring faults and fractures, and potential alteration of deep groundwater flow regimes.

Development of natural gas resources using current technologies presents potential risks to public health.”

Based on that study Mayor Bloomberg decided to put a ban on hydraulic fracturing in the NYC watershed.

It is the responsibility of PA DEP to do the same, at least in the Delaware River Basin, as soon as possible. Why are the results of this NYC DEP study ignored by PA DEP?

Water contamination with methane

According to a July, 2010 Scientific American article *The Drillers Are Coming* “drilling may cross pockets of

methane, allowing the gas to rise up the borehole to groundwater.”

We all know about the private water wells that were contaminated with methane in Dimock, PA, by gas wells drilled by the Cabot Oil & Gas company. Josh Fox’s documentary Gasland shows that Dimock is not an isolated incident.

Air quality

The proposed regulations do not address air quality.

According to a July, 2010 Scientific American article The Drillers Are Coming “investigations by state or federal agencies in Texas, Colorado and Wyoming, states where hydraulic fracturing has been practiced for years, have raised anxiety. An August 2009 air quality study in Dish, Texas, conducted by the state’s Commission on Environmental Quality found that benzene, xylene, and other toxins exceeded legal limits.”

Proximity of natural gas wells to private water wells and homes

In June, 2010 a gas well exploded in Clearfield County, PA sending a geyser of 35,000 gallons of chemical-laden wastewater into the forest. A nearby stream was polluted. It took 16 hours to bring the well under control. Current laws and regulations don’t prohibit wells from being placed very near homes. We saw gas wells only a couple of hundred feet away from houses in Dimock. What if an explosion like the one in Clearfield County drenched someone’s backyard with toxic chemicals – or even their children? What if the water from a stream that was contaminated in this way entered the Delaware River?

The horizontal branches of hydro fractured wells are one mile long. Who checks where these horizontal legs are placed and insures that they are not placed under the land and water wells of property owners who did not sign leasing agreements with oil and gas companies?

If hydraulic fracturing is not banned, PA DEP should require immediately that natural gas wells and their horizontal branches are placed at least one mile away from private water wells and homes.

Sincerely,

Wanda Skalba
860 Maple Grove Road
Starrucca, PA 18462

wanda.skalba@gmail.com

Re: PROPOSED RULEMAKING

**ENVIRONMENTAL
QUALITY BOARD**

[25 PA. CODE CH. 78]

Oil and Gas Wells

The proposed rulemaking does not address items required to protect Pennsylvania residents from water, air and noise pollution.

Summary

Hydraulic fracturing, as it is practiced at this time, is a dangerous technology that should be banned. There is plenty of evidence that it poses serious dangers to human health and environment. It should never be allowed in the Delaware River Basin. Pennsylvania should ban hydraulic fracturing at least until the US EPA completes its study on this subject. If hydro fracking is not banned, the drillers should never be allowed to use the toxic chemicals, such as benzene or diesel fuel, that they are using now. Also, if allowed, hydraulic fracturing should never be permitted closer than one mile away from private water wells and homes.

Toxic chemicals used in hydraulic fracturing

In his letter about the FRAC Act to Speaker Pelosi NY Representative Maurice Hinchey wrote:

"I have had deep concerns about the environmental and public health risks associated with hydraulic fracturing. The drilling process involves injecting into the ground millions of gallons of water laced with chemicals, some of which are known to be toxic. There are numerous reports that the practice has contaminated drinking water and surface water supplies, and negatively impacted air quality.

The House Energy and Commerce Committee has initiated an investigation into whether natural gas drilling companies are abiding by a 2004 voluntary agreement not to use diesel fuel in their fracturing fluids. Preliminary reports indicate that companies have broken their commitments."

Since it is already known that hydraulic fracturing poses danger to health and environment PA DEP should put a ban on it until the US EPA study is completed. If that is not done, PA DEP should immediately require that no toxic substances such as benzene or diesel fuel are used in the process.

Water contamination with toxic chemicals

A July, 2010 Scientific American article *The Drillers Are Coming* makes several very alarming points and implies that drilling for natural gas threatens to pollute water supplies:

1. "Enormous volumes of water and chemicals are forced down the wells and fouled water flows back up, picking up from the shale heavy metals and naturally radioactive materials. Going down, the fluid is about 0.5 percent chemicals. The chemicals include hydrochloric acid, ethylene glycol, glutaraldehyde, methanol, and petroleum distillate blend. 25,000 to 250,000 gallons of chemicals are used per well."

(Since thousands of wells are planned for construction in Pennsylvania within the next couple of years millions of gallons of chemicals would be injected into these wells and a significant portion of them would remain there)

2. "The Endocrine Disruption Exchange, led by Theo Colborn, a former EPA science adviser, determined that the chemicals could cause damage to the lungs, liver, kidneys, blood and brain"
3. "According to Anthony Ingraffea, a professor of engineering at Cornell University who has a PhD in rock fracture mechanics, the chemicals could find their way up to groundwater." He says that in the wells constructed with the hydraulic fracturing method "the space between the wider bore and the narrower pipe is not uniform; the bore intersects voids, fractures and cracks and sometimes cement does not fill those features"
4. It is also unclear how long the cement used in the construction of gas wells will last
5. "The flowback fluid can leak at the wellhead. High pressures can cause malfunctions at the surface"
6. "Another problem involves leaks from poorly built or lined holding ponds into which the drilling fluids with the chemicals are sprayed. When the entire hydraulic fracturing operation is considered, including wastewater holding ponds, hundreds of contamination incidents have been documented. In Dimock, PA, the DEP cited Cabot Oil & Gas for spilling fracking fluid and diesel."

The NYC DEP study completed in December of 2009

In December, 2009 NYC DEP retained the Joint Venture of Hazen and Sawyer, an environmental engineering firm, and Leggette, Brashears & Graham, a hydrogeologic and environmental consulting firm, to perform an assessment of impact of hydraulic fracturing in the NYC watershed. Here are some excerpts from that study:

"Intensive natural gas well development in the watershed brings an increased level of risk to the water supply: risk of degrading source water quality and the risk of exposing watershed residents and potentially NYC residents to chronic low levels of toxic chemicals.

In addition to surface risks to the watershed, extensive hydraulic fracturing of horizontal wells will present subsurface contamination risks via naturally occurring faults and fractures, and potential alteration of deep groundwater flow regimes.

Development of natural gas resources using current technologies presents potential risks to public health."

Based on that study Mayor Bloomberg decided to put a ban on hydraulic fracturing in the NYC watershed.

It is the responsibility of PA DEP to do the same, at least in the Delaware River Basin, as soon as possible. Why are the results of this NYC DEP study ignored by PA DEP?

Water contamination with methane

According to a July, 2010 Scientific American article *The Drillers Are Coming* "drilling may cross pockets of methane, allowing the gas to rise up the borehole to groundwater."

We all know about the private water wells that were contaminated with methane in Dimock, PA, by gas wells drilled by the Cabot Oil & Gas company. Josh Fox's documentary *Gasland* shows that Dimock is not an isolated incident.

Air quality

The proposed regulations do not address air quality.

According to a July, 2010 Scientific American article *The Drillers Are Coming* “investigations by state or federal agencies in Texas, Colorado and Wyoming, states where hydraulic fracturing has been practiced for years, have raised anxiety. An August 2009 air quality study in Dish, Texas, conducted by the state’s Commission on Environmental Quality found that benzene, xylene, and other toxins exceeded legal limits.”

Proximity of natural gas wells to private water wells and homes

In June, 2010 a gas well exploded in Clearfield County, PA sending a geyser of 35,000 gallons of chemical-laden wastewater into the forest. A nearby stream was polluted. It took 16 hours to bring the well under control. Current laws and regulations don’t prohibit wells from being placed very near homes. We saw gas wells only a couple of hundred feet away from houses in Dimock. What if an explosion like the one in Clearfield County drenched someone’s backyard with toxic chemicals – or even their children? What if the water from a stream that was contaminated in this way entered the Delaware River?

The horizontal branches of hydro fractured wells are one mile long. Who checks where these horizontal legs are placed and insures that they are not placed under the land and water wells of property owners who did not sign leasing agreements with oil and gas companies?

If hydraulic fracturing is not banned, PA DEP should require immediately that natural gas wells and their horizontal branches are placed at least one mile away from private water wells and homes.

Sincerely,

Wanda Skalba
860 Maple Grove Road
Starrucca, PA 18462

wanda.skalba@gmail.com