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From: zinc5 [zinc5@enter.net]
Sent: Tuesday, February 02, 2010 12:33 PM
To: EP, RegComments
Subject: DEP Chapter 95 Proposed Revisions
Attachments: Frac Water Chemicals Chemical Components.pdf; MarcellusShale_formatted.pdf

INDEPENDENT REGULATORY
REVIEW COMMISSION

Greetings,

Attached please find and include in public comment the position paper for the Marcellus Shale issue presented by United Sludge-Free Alliance. Please include this in your public comments and enforce a moratorium on drilling until a realistic and useful protection of the communities, water and food supplies effected by drilling are in place.

Thank you,

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Frac Water Chemicals Chemical Components (From MSDS)

This list is the basis for the "River Reporter" article analyzing the health effects of fracturing ingredients to be found at this link: www.riverreporter.com/issues/08-12-04/fracking.pdf. Information from the Pennsylvania Department of Environmental Protection (DEP), December 2008.

2,2-Dibromo-3-Nitrilopropionamide
2-butoxyethanol
2-methyl-4-isothiazolin-3-one
5-chloro-2-methyl-4-isothiazotin-3-one
Acetic Acid
Acetic Anhydride
Aliphatic Acid
Aliphatic Alcohol Polyglycol Ether
Ammonia Persulfate
Aromatic Hydrocarbon
Aromatic Ketones
Boric Acid
Boric Oxide
Butan-1-01
Citric Acid
Crystalline Silica: Cristobalite
Crystalline Silica: Quartz
Dazomet
Diatomaceous Earth
Diesel (use discontinued)
Ethane-1,2-diol
Ethoxylated Alcohol
Ethoxylated Alcohol
Ethoxylated Octylphenol
Ethylene Glycol
Ethylhexanol
Ferrous Sulfate Heptahydrate
Formaldehyde
Glutaraldehyde
Glycol Ethers
Guar gum
Hemicellulase Enzyme
Hydrochloric Acid
Hydrotreated light distillate
Hydrotreated Light Distilled

Isopropanol
Isopropyl Alcohol
Magnesium Nitrate
Mesh Sand (Crystalline Silica)
Methanol
Mineral Spirits
Monoethanolamine
Petroleum Distillate Blend
Petroleum Distillates
Polyethoxylated Alkanol (1)
Polyethoxylated Alkanol (2)
Polyethylene Glycol Mixture
Polysaccharide
Potassium Carbonate
Potassium Hydroxide
Prop-2-yn-1-01
Propan-2-01
Propargyl Alcohol
Propylene
Sodium Bicarbonate
Sodium Chloride
Sodium Hydroxide
Sucrose
Tetramethylammonium Chloride

Frac Stage #1

Hydrochloric Acid
Propargyl Alcohol
Methanol
Acetic Acid
Acetic Anhydride

Frac Stage #2

Methanol
Boric Oxide

Petroleum Distillate Blend
Polysaccharide
Potassium Carbonate
Sodium Chloride
Potassium Hydroxide
Ethylene Glycol
Boric Acid
Sodium Bicarbonate
Monoethanolamine

Frac Stage #3

Hydrotreated light distillate
Ethoxylated Alcohol
Glutaraldehyde
Dazomet
Sodium Hydroxide
Methanol
Diesel (use discontinued)
2,2-Dibromo-3-Nitrilopropionamide
Polyethylene
Glycol Mixture
Mesh Sand (Crystalline Silica)

From Preserving Forests, Protecting Waterways: Policies to protect Pennsylvania's natural heritage from the threat of natural gas drilling, Staaf and Masur, PennEnvironment Research & Policy Center, Winter 2009.



The United Sludge-Free Alliance Marcellus Shale Position Paper

Marcellus Shale & Sewage Sludge: Same Sh, Different Day**

Marcellus Shale drilling looks like big money for Pennsylvania - big money for a limited few. The realities of pursuing this approach to meet our fuel needs will not 'liberate' us from our oil addiction. Instead, we will spend millions on the health and safety of our communities, food and water supply ruined by the known hazardous waste from the drilling process. There is concern, not only about fresh water quality after the discharge of the known toxic chemicals used in the Marcellus Shale drilling process, but also with the land that will receive the remaining waste. What does the United Sludge-Free Alliance have to do with the Marcellus Shale issue? Let's address the concept that the toxic chemicals used in the drilling process will be made safe through the "treatment of waste water".

First, a quick look at the major Pennsylvania Rivers and watershed areas. What do Pennsylvania's watersheds have to do with Marcellus Shale and sewage sludge? Millions of people rely on our watershed areas to provide their drinking water and sustain our food supply. Consider that Pennsylvania's population is roughly 12,600,000 and is sixth in the nation. Philadelphia's population is sixth in the nation of US cities. But the citizens of Pennsylvania will not be the only ones affected by the contamination from the Marcellus Shale drilling - sewage sludge and rain water run-off ensure equal opportunity pollution.

Forty percent of the US population is within one day's drive of Pennsylvania and the Delaware River. The Delaware River, Pennsylvania's most eastern river separating Pennsylvania from New Jersey, creates a watershed basin that provides 5% of America's water supply. Fifteen million people, including 7 million in New York City and New Jersey, rely on the Delaware River watershed for their water supply. Philadelphia, with 1,500,000 residents, is the southern-most Pennsylvania city and is at the transition of where the fresh water of the Delaware River becomes the salt water of Delaware Bay before joining the Atlantic Ocean.

Susquehanna River watershed almost cuts Pennsylvania in half from south to north, passing through Harrisburg and including a population of 4,000,000. The Susquehanna watershed accounts for 45% of Pennsylvania's agricultural land use and for 25% of the drainage area. The Susquehanna watershed leads into the Chesapeake Bay watershed area. The Chesapeake watershed has 100,000 miles of streams and rivers and includes a population of 16.6 million in six states - Pennsylvania, Delaware, Maryland, New York, Virginia, West Virginia and

Washington, DC. The Chesapeake has become so polluted that the Obama administration has named a special commission to address the issue.

Ohio River basin includes the Allegheny River watershed, the Monongahela watershed, covers 204,000 square miles and parts of 14 states. Like many major cities, the western Pennsylvania city of Pittsburg and the 1,281,000 inhabitants rely on the river and watershed for their drinking water. And like many major cities, the water that sustains the community is also the water that receives our waste. A large portion of the drilling for Marcellus Shale is in the western part of Pennsylvania but the effects of drilling will impact health and safety of citizens in a much wider area. Although Pennsylvania has a history of drilling for various fuels, the combined use of fresh water and toxic chemicals in the Marcellus Shale drilling process has severe effects on the fresh water sources throughout the community and the nation. Oddly enough, it will also have an effect on America's food supply.

Drilling through the hard layer of Marcellus Shale to get to the natural gas found 5,000 to 8,000 feet underground requires a process of high-pressure hydraulic fracturing, or "fracking". By combining chemicals (see attached list) with the millions of gallons of water pulled from wells, streams and rivers, the gas companies not only remove the fresh water that all humans, animals and plants need for survival but simultaneously poison the waters that sustain us. First, the known toxic chemicals are combined with water and injected underground drilling through dirt, rock, Marcellus Shale - but also through underground fresh water. Unfortunately, underground fresh water does not stay in one place or recognize property boundaries, carrying pollution to numerous locations. After wells and waterways are poisoned, people become ill and their homes and communities can no long provide a basic quality of life. Then, 60 to 80 percent of this chemical brew comes back to the surface, where disposal become the challenge. In 2005, Congress voted to exempt the oil and gas industry from complying with the Safe Drinking Water Act.

The waste from the fracking is sent to waste water treatment plants to "treat" some of the chemicals before reintroducing the water back to the community. But where do those chemicals go? When the fracking fluids go to a waste water treatment plant, the chemicals combine with the sewage from homes, businesses, industry, hospitals and mortuaries. There, it is heated, treated with even more chemicals and squeezed, with the goal of separating the liquids from the solids in order to return the liquids back into the community. The liquids, called effluence, are generally deposited in waterways and rivers but can also be used to water crops. The solid remains of everything that goes down the drain and exits the waste water treatment plant are called sewage sludge, or biosolids. Obviously, sewage sludge is the condensed collection of our natural human manure, all the deposited chemicals, heavy metals, pathogens, pharmaceuticals and viruses.

Now, let's add the known hazardous chemicals from the Marcellus Shale drilling sites to the toxic soup at the waste water treatment plant. Although the "short list" of many of the toxic chemicals used in the drilling process is known to cause severe health effects or cancer, none are tested, regulated or restricted in sewage sludge. In fact, the US Environmental Protection Agency (EPA), in their faulty determination of sewage sludge "safety", requires testing for only nine elements - mercury, arsenic,

molybdenum, nickel, selenium, cadmium, copper, lead and zinc. In an “under-whelming” act of public safety concern, the Pennsylvania Department of Environmental Protection (DEP) adds PCB’s to the list of required testing of sewage sludge. Only salmonella OR E. coli are required for testing in a false assumption that pathogen risk is reduced if one of these “indicator” bacteria is reduced. There is no required testing for any viruses, pharmaceuticals, chemicals or other known hazardous waste. If any other element is found in the sewage sludge or waste water treatment plant fluid effluence, there is no legal requirement to restrict the use of these products on our food, water or communities.

8 million tons of sewage sludge is marketed throughout the US and used as a “fertilizer” option on farm fields, parks, playgrounds, golf courses, re-claimed land and sold as bagged fertilizer. Pennsylvania, the most sludged state in America, imports sewage sludge from neighboring states to spread on our farmlands. The most sludged counties - and our best farmland - are Berks, Lancaster and York. But sewage sludge is land applied throughout Pennsylvania and America. All open land - farmland, woodland, parks, and family gardens - drain to some form of waterway above ground or under ground. All watershed areas will naturally drain to the wells, aquifers and rivers that provide our drinking water. All sewage sludge run-off does, too.

Use of sewage sludge and waste water treatment plant effluence on our food and water has never been tested for human safety. Even the EPA’s own findings admit to lack of scientific studies of the health risks, the dangers of combining chemical and pharmaceutical, and the inability to guarantee human safety from sewage sludge. Unfortunately, the EPA refuses to reevaluate their own cavalier approach to the known toxic waste that resides in sewage sludge, instead choosing to protect the policy, not the people. Federal law prohibits banning the land application of sewage sludge and under the Pennsylvania ACRE act 38 law, any community trying to protect themselves by imposing stricter sludge regulations faces legal action by the PA attorney general - using your tax dollars to sue the community. Have there been any scientific studies on the potential health implication of combining all these chemicals with the heavy metals, pharmaceuticals and viruses? Never.

Recent noteworthy science and medical reports include: antibiotic resistant MRSA found in waterways and beaches; a sevenfold increase in autism in California found from environmental impact; plutonium found in Boulder, Colorado; radiation found in sludge from Royersford, Pennsylvania; Teflon type chemicals, including PFO’s and PFOA’s in agricultural soils where cattle graze in Decatur, Alabama; salmonella in groundwater from run-off in Athens, Georgia; endocrine disrupters traced to hermaphrodite frogs and fish found downstream from wastewater treatment plants; flame retardants and the disinfectant soap triclosan found in every sewage sludge sample tested by the EPA in their 2007 national survey. Sewage sludge containing any of these environmental and health dangers, including the chemicals used in fracking Marcellus Shale, can legally be spread on the farm land where your food is grown. Sewage sludge run-off carries it’s contaminants into the watersheds and rivers from sea to shining sea.

If you think that the drilling industry or our EPA and DEP are looking out for your safety when it comes to Marcellus Shale, waste water treatment plants and sewage sludge, you better think again. Although the affects of these toxins on soil organisms,

plants and grazing livestock, animals, water and humans is known, the EPA and US government bureaucracies refuse to reevaluate the practice of land applying sewage sludge. And, yes, scientific studies world-wide that are not funded by the sewage sludge industry, show that our food and water absorb these heavy metals and toxins which we then consume.

In an effort to balance the 2010 Pennsylvania state budget, the DEP staff and operational funding was cut 30%. So even if there were an effort at stricter regulations, who would enforce those rules without the staffing and funds to be effective? Where is the wisdom of pouring known toxic waste on our communities, food and water supply as a false fertilizer or for a limited fuel source? Is the health impact on the 12,600,000 people living within the Pennsylvania borders and the millions more human and environmental lives that will be impacted worth the short term, financial gain for a limited few? No, the risk is too high - the loss too great.

As part of our American democracy, we must seriously restrict and regulate industry that presents a known health and safety hazard to our communities, food and water, whether it be Marcellus Shale gas drilling or the land application of sewage sludge. We must refrain from the influence of industries or individuals who will benefit from the Marcellus Shale business deals. It's time to protect the people, not the policy. United Sludge-Free Alliance insists on a moratorium on Marcellus Shale drilling, permits and dumping at waste water treatment plants.

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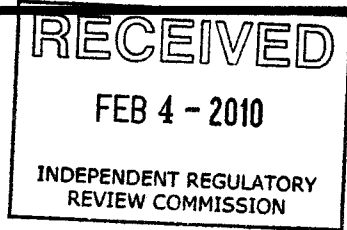
For more info:

www.usludgefree.org

www.PennEnvironment.org

www.cleanwateraction.org

From: Burt Waite [bwaite@moody-s.com]
Sent: Tuesday, February 02, 2010 3:27 PM
To: EP, RegComments
Cc: bwaite@moody-s.com
Subject: Comments on Proposed TDS Strategy/Regulation



Submitted Via Email;
RegComments@state.pa.us
RE: Proposed TDS Strategy

I wish to express my strong opposition to the proposed Total Dissolved Solids Strategy/ Policy/Regulations on the grounds that:

- An adequate evaluation of the economic impacts to the regulated community has not been completed
- Environmental justification for rule making has not been made
- The technical and economic feasibility for required treatment has not been demonstrated and
- The proposed time frame to comply with the proposed regulations is inadequate.

It is therefore recommended that DEP withdraw this regulation and take the time needed to completely evaluate the implications of this action.

Respectfully Submitted:

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