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Good Evening:

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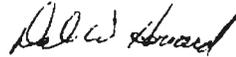
My name is Dale Howard, I live in Hazel Hurst PA. I am a hunter, fisherman, and outdoorsman. I am an environmentalist. I live and play in the great outdoors of McKean County in the midst of the Bradford oil fields. I get to see firsthand the impact the oil and gas industry has on our area. It is a positive impact. I have worked in the local oil and gas industry for 34 years. Many of my friends and neighbors also depend on the local oil and gas industry for their income. Those who don't, have friends and family who do. Oil and gas is truly vital to the economic well being of our area.

In regard to the proposed regulations for conventional oil & gas producing, I would like to request that the department return to the regulations set forth in Act 223, known as the Oil & Gas Act of 1984. Until the Marcellus industry arrived, the conventional producers operated under Act 223; the environment was protected, and producers could economically operate. As I try to read the proposed regulations, I am boggled by the additional paperwork and reporting requirements that would be required. The proposed regulations appear to be a "cut and paste" version of regulations designed for the new non-conventional drilling industry, not for an industry that has been operating in Pennsylvania for over 150 years. Why now, would there be any benefit to producers reporting where the stone came from to fix well roads? What is the benefit of reporting where the fresh water came from to cement a string of casing? Why require a soil scientist to determine if the bottom of a pit is 20" above the seasonal ground water when that determination is currently made by DEP inspectors who are not soil scientists? Why require site specific PPC plans when the current control and disposal plan requirement has adequately served the industry and environment? Why require 3 days notification before constructing a pit when there are times that an operator does not foresee the need for a pit prior to commencing servicing or plugging? The situation can arise when a pit quickly constructed and lined is necessary to control a changing situation. Is it really necessary to hire a registered professional engineer every time a producer constructs a tank battery? What is the additional cost to equip tank batteries with alarms and monitoring equipment? Properly constructed secondary containment provides more environmental protection than any monitor or alarm.

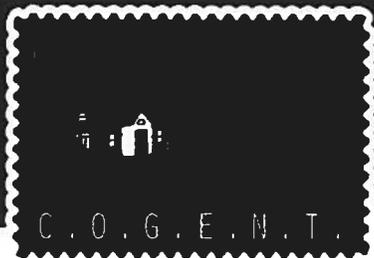
On another note; there was recently an article in the Pittsburgh Post Gazette regarding these proposed regulations. It contained pictures that were supplied by the DEP to justify the need for more regulations. One picture showed a newly cemented gas well with a fire beside it. The rig crew was burning plastic thread protectors on site. The DEP identified it as an oil fire. As I looked at the other pictures, I wondered how they showed the need for new regulations. All of the incidents were violations of the old regulations (Act 223).

I am somewhat puzzled as to why we are going through this public comment process again. The public provided input to the technical advisory board last year regarding the proposed regulations. When the technical advisory board suggested that the DEP not adopt the regulations as proposed, they were terminated. It appears as though the DEP has no intention of listening to the public nor considering the impact that the proposed regulations will have on the conventional oil and gas producers nor the economic impact to our communities.

Thanks You



Dale W. Howard
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"Connection for Oil, Gas & Environment in the Northern Tier, Inc."

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DEP Chapter 78a – Environmental Protection Standards at Oil & Gas Well Sites

Public Hearing

May 4, 2015

Williamsport, Pennsylvania

Testimony

Given By

Emily E. Krafjack

Good Evening,

I am Emily Krajack, president of Connection for Oil, Gas & Environment in the Northern Tier. We are a regional advocacy organization based in the northern tier focusing on unconventional oil and gas resources within Bradford, Sullivan, Susquehanna, Tioga and Wyoming counties. Our primary quest has been to advocate for better regulations for gas industry operations near our homes and schools.

I want to talk briefly about the promise versus the practice. Land-men began traipsing around our country-side as early as 2005. Those early and more recent conversations all evolve around promises made. A promise that we were guaranteed to receive a minimum 12.5% royalty, when in fact the practice is many royalty owners are receiving far less than their negotiated due royalty. A promise that we do not have to be concerned about our water, when the practice is dozens and dozens of families have either impaired water or water restored at a quality less than pre-drill tests would indicate. A promise that the next door neighbor to a well pad would only hear a hum; when the practice is to not use any or very little noise mitigation which results in nearby families having volumes of intermittent noise that interferes with basic living. And, these are just a few of promises that fail to meet the practice.

Industry trade groups attempt to lead people to believe that this rulemaking now up for public comment was crafted in a vacuum. That is far from the truth. These regulations have been moving forward since 2011 when we were advocating for protective measures with our assembly members. During 2013, TAB convened four subcommittees which included stakeholders from industry trade groups, operators, NGOs, an environmental coalition, and we were included with a seat during these four subcommittees which met several days discussing various proposed provisions. During this process, assignments were given; opportunities were taken to submit proposals for discussion.

Part of what came out of this process was the concept of centralized tank storage facilities. It was noted that a new permit was needed and the assignment was for certain industry stakeholders to submit for the next meeting a proposal of what they would suggest for a

EMILY KRAJACK COGENT
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permit. A proposal was submitted, two pages long, using the word "tank" only twice. The proposal included no description for a permit, but rather was a permit by rule. There was continued discussion at meetings regarding this concept. During the public comment period last year we submitted comment what we'd like to see in a centralized tank storage permit. Thus, for those of us participating in the process, these new provisions should not come as a surprise. They were not created in a vacuum, there was plenty of opportunity to provide information and be part of the rulemaking process.

As mentioned previously, this rulemaking began in 2011. In these years since, Colorado, Ohio and West Virginia have all moved forward with, adopted and implemented upgraded regulations and we are still struggling to do so. Whether it is the United States or internationally, eyes are upon the Marcellus Shale, promise versus, practice, versus performance. The lack of a clear and predictable regulatory framework in Pennsylvania has been instrumental in New York and Maryland's moratoriums along with those of the provinces of New Brunswick, Nova Scotia, Labrador, Newfoundland and Quebec, many of whom have visited here and perhaps failed to like what they saw being they also instituted moratoriums.

Now, we at C.O.G.E.N.T. have never advocated for a moratorium nor would we. At this point in the play, such an action would be devastating to our region. However, we can readily see that lacking common sense, reasonable regulations are essentially much needed in order to reach a delicate balance where all stakeholders thrive. It is obvious that these regulations are very much needed. We strongly urge the ^{Proposed} rulemaking package moves forward without further delay. We plan to submit our detailed written comments on the new draft revisions.

Thank you for the opportunity to submit testimony this evening.

EMILY KRAFJACK COBENT
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DEREK SOYKE

I am Derek Soyke. I work a full time job for a small independent oil company with operations in North Western Pennsylvania and Western New York. I also own, operate a handful of wells in McKean County. For the last five years I have had an annual production of less than two hundred barrels a year. I am just one of many small operators that rely on a few wells for extra income. My wells help cover household expenses such as real estate taxes, Orthodontist bills, and rising grocery and gasoline costs.

I stand before you tonight to tell you how the proposed Chapter 78A regulations will affect myself, my family, my community, and the shallow oil and gas industry.

The proposed regulation regarding tanks and secondary containment could mark the end of my lease. A tank replacement and a secondary containment system other than an earthen dyke would cost more than the lease could produce for the next two to three years. This economic forecast will affect all other small operators with leases just like mine. Small leases play a big part in keeping stability in the local economy. As the local refineries are already facing troubled times, crude oil shortages from disappearing leases will have a devastating effect.

Costs associated with the proposed Chapter 78A regulations of drilling and well pad construction regulation are such that my employer may not be able to withstand. With no new drilling my employer will cease to exist. My employer is just one of the many oil and gas companies facing possible ends.

Western Pennsylvania could be facing un-imaginable unemployment levels and a mass exodus from the state. The remaining employed Pennsylvanians will have to pick up the tax burden.

I am asking legislators and DEP to reconsider proposed Chapter 78A regulations.

HARVEY GOLUBOCK
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Good evening. My name is Harvey L. Golubock. I am President of ARG Resources and Vice Chairman of American Refining Group. ARG Resources owns and operates approximately 1500 conventional oil wells in Highland, PA. It is a waterflood operation with approximately half the wells as producers and half as injection. All wells are hydraulically fractured and have been for probably the past fifty years. American Refining Group, or ARG as it is commonly known, owns and operates the oldest continuously operating crude oil refinery in the world. The refinery dates back to 1881. ARG acquired the refinery from Witco Corporation in 1997. I was president of ARG from 1997 until my retirement in 2011. Most of the industry gave us six months before we would be out of business and yet here we are 18 years later still a viable operation employing over 360 people (up from about 160 in 1997). The refinery is unique in that it can only process a certain type of crude oil - principally what is generally termed Pennsylvania Grade crude oil. This crude is found in PA, Ohio, W. Va. and NYS. There are some locations, e.g. MI and some from the Utica formation that produce small quantities of acceptable crude oil. When we acquired the refinery in 1997 about 60% of the crude supply came from Ohio and 40% from PA. Over the years we managed reverse that percentage until two occurrences in recent years. First there was the ANF litigation that shut down production in the ANF for a year until the lawsuit was settled in favor of the industry. Just when we were seeing a renewed interest in development, the Marcellus shale was re-discovered and investment that might have gone into shallow well production was shifted to Marcellus development. Today only about 50% of the refinery crude comes from PA and that percentage continues to decline. Increasingly stringent regulations and increased enforcement has resulted in a dramatic increase in cost of drilling conventional wells. Today it costs anywhere from \$115,000-\$150,000 to drill a shallow oil well and, on average, about \$15,000 to plug a shallow well. These events have all worked to reduce the number of conventional wells being drilled in PA, most of which are drilled by small independent producers. The resulting decline in this "legacy" crude has made it more difficult for the ARG refinery to operate at its target rate. The proposed Chapter 78 regs will place new pressure on the local supply and will ultimately have a negative effect on refinery operations.

We see the new proposed Chapter 78 regs as:

- 1) Introducing a new requirement to perform a storm water analysis on every new well. The industry has previously been exempt from this

requirement. This change will require a certified expert to examine and report on every site. This is expected to add thousands of dollars of costs to each well.

2) Introducing a new requirement to restore new well sites to "original" contours. The term "original" is new in 2015 and is without statutory authority. It is also unattainable in most cases. At the very least it will add substantial additional cost.

3) Expanding the Public Resource considerations. It adds municipalities and school districts to the public agencies that can impose requirements. The definition of species literally includes any species that the public resource agencies might choose (all without the benefit of public comment or review process).

4) Containing multiple new notice and waiting periods.

5) Expressly making the "area of review" burdens applicable to conventional oil and gas operations. The 2013 DEP analysis stated that these burdens did not apply to conventional operators. Yet the 2015 version applies these burdens to conventional operations. The new version is also much more complicated. In some instances it will be impossible to comply with inasmuch as it requires trespass. In all cases it will be very expensive.

The foregoing is just a brief excerpt of the onerous new burdens being placed on conventional producers. The overwhelming conclusion is that the DEP has failed to analyze the financial impact of these burdens, as required by statute. Yet it is obvious that the new burdens will add strain to a supply chain that is already gravely stressed. The financial analysis cannot just be an afterthought. The law requires that the financial analysis and the consideration of alternatives for small business all be a part of the consideration during the drafting of the regulations. The financial analysis is fundamental to the development of reasonable regulations covering an industry that has been the backbone of the economy of northwest PA since the late 1800's. To fix this problem, and to fully comply with the existing statutes, the DEP needs to start the process over again. It has to begin by identifying, with supporting documentation, what, if anything needs to be changed in the existing conventional regulations and why such changes are necessary.

CHAPTER 78 HEARING

Charles (Chip) Amer

728 Little Road
Muncy Valley, PA 17258
amer728@frontier.com

- Testifying as an individual citizen of Sullivan County in support of the natural gas industry

Background

- Born and raised in Lycoming County (Hughesville)
- Degrees from Bucknell University (Chemical Engineering) and Penn State (Environmental Engineering)
- Professional Engineer
- Well versed in water treatment and water quality (personally and professionally)
- Employed by an engineering consulting firm that does work in the energy field
- Have 29 years of professional experience
- Have worked in the oil and gas arena for the last 6 years

Property Ownership

- Live near Laporte (Sullivan County)
- I have entered into oil and gas leases for four (4) properties, totaling nearly 750 acres
- The oil and gas leases are with three (3) different Energy and Production firms, and includes the property that my house is situated on
- I have a 30-inch diameter interstate pipeline traversing a property owned by my wife and I
- I have directly benefitted from the results of the Shale Gas Impact Fees due to the lowering of my local and county taxes, improved roads in my area, and the rehabilitation of Sullivan County's Court House – just to name a few.

Job Creation and Opportunities

- I have been very fortunate to be able to work as a consulting engineer in north-central Pennsylvania, in a large part due to the oil and gas industry

- My brother works for a large Exploration and Production firm, with its branch office based out of Williamsport
- My nephew is a well driller in the area
- My wife – who teaches high school – has had many of her former students that live locally and have gained employment through the opportunities offered in the oil and gas industry

Correlation to the Proposed Revisions to Chapter 78

- I am all for PADEP's goal of protecting human health and the environment.
- There currently are numerous rules, regulations and guidelines as they relate to all aspects of natural gas development.
- That's my job – to help firms in the natural gas industry to secure construction and operating permits through PADEP, the Army Corps, the Susquehanna River Basin Commission, the Conservation Districts, local municipalities, etc.

- Based on my intimate knowledge of what goes into securing such permits, I am well versed in saying that there are plenty of safeguards for the public and the environment in order to eliminate or minimize threats to human health and the environment.
- Therefore, I am not in favor of onerous and supplemental regulations that may adversely impact my job, the evolution of Pennsylvania as a major player in the world's energy supply, and the production of a superb fuel that is noted for its clean-burning properties and minimal impacts on air quality.
- I personally feel that the present version of PADEP's regulations properly protects my properties, as well as the drinking water supply for me and my family - otherwise, I likely would not lease any of my properties to the oil and gas industry.
- I value the initiative and integrity of the natural gas industry and relish the employment opportunities that it presents to this area – so let's not jeopardize this situation with onerous regulations!

Testimony to DEP --- Proposed Chapter 78 Revisions
May 4, 2015 ---- Williamsport

L. Richard Adams, on behalf of PIOGA
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Montoursville, PA 17754
E-mail: radams@chiefog.com

Good evening all. And thank you for the opportunity to testify tonight, at this very important juncture for Pa's oil and gas industry, and the Commonwealth as a whole.

My name is Richard Adams, and I am the Environmental, Health, and Safety Director for Chief Oil and Gas LLC, a natural gas producer in NE PA, with offices in Dallas, Pittsburgh, Wyalusing, and in Williamsport, where I have worked for environmental protection for over 40 years at DEP and at Chief.

I am also on the Board of Directors of PIOGA, which as you know stands for the Pennsylvania Independent Oil and Gas Association, and my testimony tonight is on PIOGA's behalf. PIOGA is a principal non-profit trade organization representing Pennsylvania's independent oil and gas producers, marketers, service companies, and related businesses. For decades, PIOGA has worked with DEP and other regulatory agencies to achieve workable, effective, and sound environmental practices and policies for oil and gas operations, through excellent and continuous lines of communication and cooperation. My testimony tonight is principally to say that, at this critical point in time, in the face of the very tough economic situation that the industry faces, those lines of communication must be kept open, effective, and trusted. We must engage in truly collaborative processes to achieve workable rules and policies.

Now you have heard tonight, in previous testimony, some of the facts and statistics about the economic and community benefits that have come about because of the Shale Gas development, and as the 31st presenter tonight, I won't repeat them ---- but I can tell you that they are real. Having lived and worked in the area here for over 40 years, raising a family and developing friendships, participating in local and county government functions, I have personally observed these benefits on the ground level. I have a group of close friends whose businesses and jobs span a diverse variety --- from welding to waste collection to consulting --- and I have seen how their businesses have flourished over the past 7 years because of the Shale Gas development in NE Pa, enabling them to hire many local kids who needed good jobs. And I am proud to say that with Chief, over the last 5 years, I myself have hired 7 young men and ladies from our greater Williamsport area, to serve on our Environmental and Safety staff. So, we do create jobs, and we do hire locally.

On the community side of thing, I could spend hours detailing the road improvements, donations, assistance on recreational and environmental projects, youth education initiatives, and multitudes of other projects and causes --- that the energy companies have funded or directly accomplished. I can tell you that when these companies develop this amazing resource that we have been blessed with in this Commonwealth, they become active and sincerely helpful members of the community. This community spirit and obligation to help is inherent in all of our internal missions and policies --- and it is not just idle rhetoric --- we live it.

So, from my vantage point, the statistics about the benefits of Shale Gas development are real.

Now, of course, this hearing is about the newly proposed Ch. 78 regulations, so I will switch over to that vein, and again I am not here

tonight to get into painstaking detail about each individual section of the proposed regulations. The Department will receive detailed comment from PIOGA on each new section of the Regulations. I would instead relate some general thoughts and impressions, again, with the theme that, unless DEP and the industry maintain open and sincere communications through the promulgation process, we may end up with regulations that are not optimal, neither for the industry to follow and understand, nor for the Department to fairly enforce.

And compliance is hugely important to both DEP and the operators. We emphasize compliance, good environmental practices, and cooperation with the Department to our staff, every day. As one who worked for DEP for 35 years and having practiced compliance assistance to a multitude of industries, it frustrates me to see some of the sensationalistic reports and blogs about the non-compliance stories of the gas industry. To be fair, we need to tell the compliance stories of this industry, because that is what is really happening, through our environmental practices and missions.

So, when we look at the proposed regulations, and with some lessons I learned at DEP when other regulations and compliance guidance were under development, I would ask the Department to please consider the following:

1. Consider whether some of the more prescriptive sections of the proposed regulation would be more effective if delivered as policy or guidance. Examples are the sections dealing with pad restoration, containment, spill remediation, among others. In the past, DEP has had much success with writing more general regulation, and providing detail in subsequently developed policies or guidance. The DEP Erosion and Sedimentation Control Manual, and the Special Protection Stream Implementation Handbook are examples of products that were

collaboratively developed from more general, flexible regulatory language, and which have stood the test of time as achieving effective compliance. Policies and Guidance are more easily changed and adapted to new advances and needs ---- Regulations are not. The industry stands ready to work with the Department to develop meaningful and responsible policy and guidance, to meet the intent of Act 13, while allowing a flexible platform in Ch. 78.

2. You will receive some pointed comment from PIOGA concerning the need to perform an economic impact analysis of the new regulations, including those that were newly included in the ANFR package. We urge the Department to take a very hard look at that, and involve the industry to the greatest extent possible in the analysis.

Our challenge is to achieve the intent and the principles that our legislators embodied into Act 13, by promulgating regulations that are appropriately responsive to the law, create meaningful compliance, and create no additional expense to operators that is unjustified. Our ability to meet this challenge may make or break the incredible opportunity that we, as Pennsylvanians, have, to develop this important clean energy resource, and put Pa on the forefront of economic growth and energy independence.

Thank you.

5 May 2015

Mark Fischer
LW Survey Co.
1725A Oregon Pike
Suite 204
Lancaster, PA 17601

LW Survey provides professional survey, mapping, and routing services to the oil & gas industry. We're the country's largest pipeline survey firm. To say we have our finger on the pulse of the midstream sector is an understatement. We track, monitor, and pursue nearly every pipeline project in the U.S., Canada, Russia, and Australia.

My job is business development. My role is to ensure our professional survey crews stay employed. In the past 3 months alone I have witnessed an unprecedented amount of uncertainty among my clients and prospects which has led to projects being delayed, rethought, or canceled entirely. All of this from the mere uncertainty of the fiscal and regulatory climate in Pennsylvania.

We have laid-off dozens of survey crews since the downturn began. Couple that with Harrisburg's intent to further tax the industry and now the DEP's move to change the rules- Pennsylvania has effectively created the perfect storm. One that will most certainly kill the golden goose that remains one of the brightest spots in our Commonwealths economy.

I am among the 340,000 Pennsylvanians employed by the oil & gas industry. That number should only grow as some estimate we are only 15 years into a 150 year process. But we will never get the chance to realize those numbers, those jobs, and the economic benefits for all Americans (not just Pennsylvanian's) if we continue to single out an industry with burdensome rules that don't apply to any other industry.

I had dinner the other night with two of your colleagues from the DEP. These two are personal friends and we rarely discuss business. However, I felt compelled to share with them the reality that, to date, there is only one operator in the entire Marcellus Shale play that is currently cash flow positive. After 15 years, only one is cash flow positive- primarily due to the lack of infrastructure to move this product to market. They were astounded. They had no idea and I wonder if you realize just how tenuous this situation is.

Extraction, production, transportation, and distribution is a long and complex process no doubt but one that has been further stressed by regulatory oversight that many believe is overreaching. PA already has world class environmental regulations that have been a model for states across the nation. Protecting the environment is in everyone's best interest. But why should we pay an unfair price? Some of these proposed standards, like new limitations regarding public resources, are literally unlawful. Why? We have been nothing but good stewards of the land as well as good neighbors.

Just seven years ago we were in near panic over our reliance on foreign energy imports. A precarious position for sure. Today, thanks to an American ingenuity, that was developed by Americans, produced and delivered by Americans, and that benefits every American- is in jeopardy. Piling on additional

regulations would be crippling. I, along with my hundreds of thousands of colleagues, implore you to work with us on these proposed standards that, frankly, have little to any commensurate benefits.

Bottom line, rigs are mobile. They have wheels. If they move to other basins around the country and the globe; PA will have lost one of the greatest economic stimulators we have ever witnessed our history. Hundreds of thousands of jobs are on the line. The ball is in your hands. Our loss is the Middle East's gain. Please don't drop the ball with this game changing opportunity.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Fischer', with a long, sweeping horizontal flourish extending to the right.

Mark Fischer

Diane Ward

5/4/2015

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Wysox PA 18854

pekin_2@yahoo.com

Testimony on Final Rulemaking Chapter 78/78a Williamsport PA

Good Evening. Thank you for this opportunity to speak to you concerning the Chapter 78/78a draft final rulemaking. Much previously given public input aimed at perserving the environment shines out in the current draft regulations and I thank you for this, but you also need to persevere and insure that these positive changes make it through to the final approved rulemaking.

My five minutes today are to express my strong concern about, and opposition to, the addition of 1 specific new definition and one associated new rule that have somehow made it into this final draft. The items of concern deeply undercut the strong positive progress forward made elsewhere in the proposed regulations. The definition of concern is that of Abandoned Water Well and the associated rule is 5 (b.2). which states that "For purposes of compliance with 58 Pa.C.S. Section 3215(a) an abandoned water well does not constitute a water well.

I object to both the inclusion of a definition of Abandoned Water Well and the use of the newly defined term in determining gas well site compliance with Section 3215(a). The existence and location of water wells is an important consideration in the siting of new gas wells. The regulations in Section 3215(a) determine critical well location restrictions as shown highlighted in yellow on my testimony paper copies. Inclusion of the new Abandoned Water Well definition constitutes a unilateral, heavy-handed decision on the part of DEP that a large portion of our state's water wells are "abandoned water wells" and not of consequence relative to the placement of new conventional or unconventional oil and gas wells. Not only is the proposed definition fuzzy - for example, what does "when its use on a regular or prescribed basis has been discontinued" mean, and how will it be interpreted? - but more importantly the definition presumes that someone other than the property owner is making a determination about the value of current and future use of a property's assets. The process for making this designation of "Abandoned Water Well" is not specified in the proposed final regulations, which is another issue.

All water wells, used or unused, are doorways into our aquifers. Whether an aquifer is currently used or not is of little consequence relative to your agency's charge to preserve the purity of the waters of the Commonwealth. All water wells create paths for the possible migration of methane or chemical pollutants under the less than ideal drilling and transporting realities, and the older the water wells are, the more likely that they might be a vehicle for methane migration to the surface, whether that be in the outdoors or in the basement of someone's

home. The drilling industry should put a priority on avoiding abandoned water wells via setback, rather than looking to get a broad brush definitional waiver of setback requirements from the DEP which will result in the industry drilling even closer to these water wells.

By looking at my own properties as typical rural examples of the presence of wells which might be classified as "abandoned" if this definition is adopted, I expect that the number of "abandoned" water wells will far exceed the number of water wells in current use in PA.

In my case, I have 8 water wells - 2 water wells in every day use and approximately 6 water wells which could be at risk of being classified as abandoned based on what I read in the proposed definition. I have provided the details of these real life scenarios in my handout. To summarize, though, wells that you may consider abandoned may be:

- used as future outside water in a town with municipal water where ordinances allow
- become used as a rural property is subdivided
- become used when a vacant rural property is rehabilitated and inhabited
- used via manual methods (bucket or hand pump) for recreational buildings.
- *piecemeal development of a parcel due to limited funds*
- converted from agricultural to residential or vice versa as buildings are added or replaced
- *waiting for the next trailer to ^{move} come in*
- may have deeded rights to use by parties other than the parcel owner

In most cases, water wells which would be classified as abandoned by the proposed definition would be considered as unused by choice by the property owner, and the water they contain is as precious as any provided by any wells in use or water authority. Certainly these wells should be protected from the risk of siting an unconventional gas well less than 500 feet from them.

Real Life Scenarios:

Over 25 years ago, I purchased a home which was previously vacant for many years which had a totally inoperable water system and three wells. (Would this be 3 abandoned wells?) One vault resides in the basement with a concrete enclosure, a second is in a cinderblock vault just outside the home, and a third well house on the property was previously used as an outdoor water source for agriculture. I retained this home in its vacant state for almost 10 years, waiting for a relative to move to the area. When they finally did, the retrofitting of the well in the vault outside the home was an easy task. A simple replacement of the old plugged galvanized plumbing with plastic, a new water heater, and a new shallow well pump and we were done. This well delivered high quality water to the home for the next 15 years. (Classification - 1 well no longer abandoned?) The water had good taste and tested perfect in pre-drill testing conducted. Recently, town water became available and although I was not required to hook in based on the ordinance enacted, I requested to be on the system due to the pending

construction of a gas station next door. I hooked into the town water system last year. My outdoor vault well is currently disconnected (3 wells again abandoned?), but I have plans to use the this system for outside water, which is permitted under the authority's guidelines (Future classification - 1 well no longer abandoned?). While I have not investigated the water source in the concrete covered vault in the basement, this too is an asset I want to preserve. The well house in the yard is in a great location should I subdivide my property in the future, which is likely. (Possibility of 2 wells no longer abandoned).

The ebb and flow of rural life drives the maintenance and use of rural water wells to be intermittent. Other scenarios on my lands are : a currently unused agricultural water well, formerly for livestock, which could be used to serve a new seasonal home or full time residence. Pre-drill testing found this water source to be excellent. A third scenario is a seasonal cabin with a hand dug, bucket accessed water well in well house that is used occasionally whenever the cabin is used. There is no piping because there is no septic system, but that water is a real asset when the cabin is used and also underwent pre-drill testing, far surpassed drinking water standards. A fourth scenario is a spring which lies on my property but which the neighbor has a deeded right to use for his house and barn. Although I don't think that he is currently using it, doesn't that water deserve to be protected as well?

Lastly, and possibly even more importantly, I would like to point out that adding this definition and ill-advised regulation puts at risk town and municipality-owned water sources which might not be currently used or outfitted for use, but are still viable water sources for small town populations without the funds to prospect for, and drill, new water wells on the turn of a dime.

If drilling were not a risk to water wells, there would be no setbacks. The current system of allowing a property owner or water purveyor to sign off on a consent to locate gas and oil wells at closer distances than are specified in 3215 (a), and the process of allowing an operator to apply for a variance should that sign off not be obtained is sufficient to give operators a measure of control over the siting of wells.

To be sure, the rural areas are littered with legacy water wells. I am sure that their existence is a bane to the gas industry. Their existence is a boon to property owners, they are an asset to future rural development, and are a matter of survival in rural areas which will never be served by public water. Do not preempt our property rights by arbitrarily classifying our unused, hardly used, or reserved for future use water wells as of no consequence relative to the setback distances for the siting of future gas and oil wells. Do not give this industry a back door to sneak in, creep in closer to our residences and towns. They already have much more latitude than their environmental behavior warrants. Do not sign a death warrant on the future of low cost private water that meets drinking water standards in rural PA. You may need a sip sooner than you think. |

Diaine V. Ward 5/4/15

References:

§ 3215. Well location restrictions.

(a) General rule.—Wells may not be drilled within 200 feet, or, in the case of an unconventional gas well, 500 feet, measured horizontally from the vertical well bore to a building or water well, existing when the copy of the plat is mailed as required by section 3211 (b) (relating to well permits) without written consent of the owner of the building or water well. Unconventional gas wells may not be drilled within 1,000 feet measured horizontally from the vertical well bore to any existing water well, surface water intake, reservoir or other water supply extraction point used by a water purveyor without the written consent of the water purveyor. If consent is not obtained and the distance restriction would deprive the owner of the oil and gas rights of the right to produce or share in the oil or gas underlying the surface tract, the well operator shall be granted a variance from the distance restriction upon submission of a plan identifying the additional measures, facilities or practices as prescribed by the department to be employed during well site construction, drilling and operations. The variance shall include additional terms and conditions required by the department to ensure safety and protection of affected persons and property, including insurance, bonding, indemnification and technical requirements. Notwithstanding section 3211(e), if a variance request has been submitted, the department may extend its permit review period for up to 15 days upon notification to the applicant of the reasons for the extension.

ADVANCED NOTICE OF FINAL RULEMAKING

(Editor's Note: Chapter 78a is a new Chapter in Title 25 of the Pennsylvania Code and will appear as normal text in formal documents prepared by the Department for Environmental Quality Board, Legislative Reference Bureau and Independent Regulatory Review Commission review and approval. To aid the reader in understanding the changes from the December 13, 2013 proposed rulemaking, however, this document has been prepared showing capitalization, strikeouts, bracketing, bolding and underlining indicating where changes have been made.)

CHAPTER 78a. UNCONVENTIONAL [OIL AND GAS] WELLS

Subchapter A. GENERAL PROVISIONS

§ 78a.1. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise, or as otherwise provided in this chapter:

X ABANDONED WATER WELL—A WATER WELL THAT IS NO LONGER EQUIPPED IN SUCH A MANNER AS TO BE ABLE TO DRAW GROUNDWATER. THIS TERM INCLUDES A WATER WELL WHERE THE PUMP, PIPING OR ELECTRICAL COMPONENTS HAVE BEEN DISCONNECTED OR REMOVED OR WHEN ITS USE ON A REGULAR OR PRESCRIBED BASIS HAS BEEN DISCONTINUED. THE TERM DOES NOT INCLUDE A WATER WELL THAT IS NOT CURRENTLY USED, BUT IS EQUIPPED OR OTHERWISE PROPERLY MAINTAINED IN SUCH A MANNER AS TO BE ABLE TO DRAW GROUNDWATER AS AN ALTERNATIVE, BACKUP OR SUPPLEMENTAL WATER SOURCE.

ABACT—ANTIDegradation Best Available Combination of Technologies—THE TERM AS DEFINED IN § 102.1 (RELATING TO DEFINITIONS).

ACCREDITED LABORATORY—A LABORATORY ACCREDITED BY THE DEPARTMENT UNDER CHAPTER 252 (RELATING TO LABORATORY ACCREDITATION).

Act—[The Oil and Gas Act (58 P.S. §§ 601.101—601.605)] 58 Pa.C.S. §§ 3201—3274 (relating to development[s]).

Act 2—The Land Recycling and Environmental Remediation Standards Act (35 P.S. §§ 6026.101—6026.908).

~~[Anti-icing—Brine applied directly to a paved road prior to a precipitation event.]~~

CHAPTER 78a. UNCONVENTIONAL WELLS.
ADVANCED NOTICE OF FINAL RULEMAKING

ADVANCED NOTICE OF FINAL RULEMAKING

furnished by law or the Department, and the information in subsections (b.1)-(e) and (h). The person named in the permit shall be the same person named in the bond or other security.

(b.1) IF THE PROPOSED LIMIT OF DISTURBANCE OF THE WELL SITE IS WITHIN 100 FEET MEASURED HORIZONTALLY FROM ANY WATERCOURSE OR BODY OF WATER EXCEPT WETLANDS SMALLER THAN ONE ACRE THAT ARE NOT EXCEPTIONAL VALUE, THE APPLICANT SHALL DEMONSTRATE THAT THE WELL SITE LOCATION WILL PROTECT THOSE WATERCOURSES OR BODIES OF WATER. THE APPLICANT MAY RELY UPON OTHER PLANS DEVELOPED UNDER THIS CHAPTER OR PERMITS OBTAINED FROM THE DEPARTMENT TO MAKE THIS DEMONSTRATION, INCLUDING:

(1) AN EROSION AND SEDIMENT CONTROL PLAN OR PERMIT CONSISTENT WITH CHAPTER 102 (RELATING TO EROSION AND SEDIMENT CONTROL).

(2) A WATER OBSTRUCTION AND ENCROACHMENT PERMIT ISSUED PURSUANT TO CHAPTER 105 (RELATING TO DAM SAFETY AND WATERWAY MANAGEMENT).

(3) APPLICABLE PORTIONS OF THE PPC PLAN PREPARED IN ACCORDANCE WITH § 78a.55(a)-(b).

(4) APPLICABLE PORTIONS OF THE EMERGENCY RESPONSE PLAN PREPARED IN ACCORDANCE WITH § 78a.55(i), AND

(5) APPLICABLE PORTIONS OF SITE CONTAINMENT PLAN PREPARED IN ACCORDANCE WITH 58 Pa.C.S. § 3218.2 (RELATING TO CONTAINMENT FOR UNCONVENTIONAL WELLS).

X **(b.2) FOR PURPOSES OF COMPLIANCE WITH 58 Pa.C.S. § 3215(a) AN ABANDONED WATER WELL DOES NOT CONSTITUTE A WATER WELL.**

(c) The applicant shall submit information identifying parent and subsidiary business entities] CORPORATIONS operating in this Commonwealth with the first application submitted after _____, (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) and provide any changes to [its business relationships] THIS INFORMATION with each subsequent application.

(d) [The applicant shall provide proof of consultation with the Pennsylvania Natural Heritage Program (PNHP) regarding the presence of a State or Federal threatened or endangered species where the proposed well site or access road is located. If the Department determines, based on PNHP data or other sources, that the proposed well site or access road may adversely impact the species or critical habitat, the applicant shall

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**Oral Public Comment Re: Chapter 78 Oil & Gas Regulations
Williamsport, Pa. – May 4, 2015**

My name is Melissa Troutman. In 2011, I co-founded the investigative news nonprofit Public Herald. I began this work to investigate you. Public Herald produced the documentary Triple Divide, which Scott Perry personally told me was "well done." In Triple Divide we began to unveil how DEP has only pretended to protect the public.

I'd like to begin by dedicating these words to the people who've been harmed by this industry and agency: Terry Greenwood, Carl Stiles, Judy Eckert, The Carr and Headley families, The Sethman family, Jenny Lisak, Jennifer Goorelly, The Brown, Geary, and Latin families, Carolyn Knapp, The French family, The Ely, Carter and Pepper families, The Kretschman family, The Richardsons, The Barndts, Penni Lane and her children, and the countless others whom the DEP has harmed by issuing permits that led to the destruction of lives and lands.

It's time this agency stop pretending it can protect us, that it can...replace contaminated water supplies, for example. I challenge everyone at DEP to wake up tomorrow morning and tell the truth – that the true job of this agency is not to reduce pollution, it's job is to increase it and then, sometimes, try to clean it up later.

Your authority is castrated as soon as a company feels it's in their best interests to deny responsibility. Companies tie you up in legal negotiations for months or years, and meanwhile real peoples' lives are destroyed, and you are forced to settle with the company in a "Consent Order."

Right now, DEP admits to 256 cases of water contamination as of March 30, 2015, related to unconventional deep drilling and fracking operations. Of those 256, how many private water wells have you restored?

I'm baffled as to why Section 78.51. "Protection of water supplies" is even being reworded. What's the point?

I've looked at hundreds of your water investigations and guess how many restored water supplies I've found, out of more than 256 because you and I both know that number is incorrect. How many water supplies have been restored? Zero. Because a \$20,000 filtration system that requires electricity and routine maintenance is not a "restored water supply" folks, it's simple a very expensive water filter. Meanwhile, the dairy cows in the barn are still drinking the contaminated water, and their milk is going to market.

The icing on the cake is what you reward companies who deny responsibility with even more permits. It's absolute absurdity for the word "protection" to be used anywhere in your vicinity, and it's high time you all be held accountable.

Martin Luther King Jr. fought for civil rights. I promise that as long as my body can stand, I will fight for the environmental rights that we are guaranteed by our Constitution and make sure that no one's rights continue to be abused:

Article I, Section 27 of the Constitution of the Commonwealth of Pennsylvania:

"The people have a right to clean air, pure water, and to the preservation of...the environment. Pennsylvania's natural resources are the common property of all people, including generations yet to come."

Acting DEP Secretary John Quigley had this to say about these regulations: "These proposed revisions focus on the need to protect public safety and the environment while enabling drilling to proceed."

But I prefer the wise, courageous words of Martin Luther King, Jr, who said, "In the End, we will remember not the words of our enemies, but the silence of our friends."

Will you continue to be silent?

Terry Greenwood, Carl Stiles... their blood is on your hands. Stand up to those who give you orders and say, "Not another death, no more harm."

May 4, 2015

teriksen@moody-s.com

Mr. Timothy M. Eriksen, P.G.
297 Norris Road
Waverly, New York 14892

Environmental Quality Board
P.O. Box 8477
Harrisburg, Pennsylvania 17105-8477

RE: Comments to Advanced Notice of Final Rulemaking - 25 PA Code Chapter 78, Subchapter C
Public Hearing held in Williamsport, PA

Environmental Quality Board Members:

My name is Tim Eriksen. Though I am a current resident of Tioga County, New York, I was born and spent most of my life in Pennsylvania. I am a Professional Geologist licensed to practice in the Commonwealth of Pennsylvania. I am employed by a Pennsylvania groundwater consulting and contracting firm.

Our company maintains membership with the Marcellus Shale Coalition (MSC), the Pennsylvania Independent Oil and Gas Association (PIOGA), Pennsylvania Grade Crude Coalition (PGCC) and the Pennsylvania Independent Petroleum Producers (PIPP). As a member of MSC, I was recently selected to co-chair the Stray Gas Workgroup. I am also the Public Outreach chair for the Twin Tiers chapter of the Society of Petroleum Engineers.

General Comments

The current draft revisions of Chapter 78 seem to have been developed based on fear rather than the best available science. The fear of oil and gas development, especially unconventional development (i.e. the Marcellus and Utica Shale), has been a moving target over the last 7 years and is endemic of bad science, disingenuous print, online and television media and a general misunderstanding of industry processes. An example of those moving targets:

1. Hydraulic fracturing will consume too much fresh water.

Incorrect – in the Susquehanna River Basin, the most fresh water that the industry has used in any single day is approximately half of what flows through the basin in 1 minute. That is less than one-half of one percent of the surface water available. Additionally, one of the combustion products of methane is water; some studies suggest that the combustion of methane creates more water than what is consumed by the oil and gas industry.

2. Hydraulic fracturing will contaminate drinking water aquifers.

Incorrect – Anyone who has taken a structural geology or rock mechanics course knows why this is the case. Furthermore, after nearly 1.5 million frac jobs since the 1960s, neither the USEPA nor the regulatory agencies of the 30+ states who take advantage of this resource can identify a single instance of this happening.

3. The industry will further contribute to the release of fugitive methane and thereby increase greenhouse gases in the atmosphere.

Incorrect – Methane and CO₂ concentrations in the atmosphere have decreased over the last decade despite record production of natural gas.

4. Development of oil and gas resources will increase human exposure to radioactivity.

Incorrect – The PADEP's own study rejects this notion.

5. Hydraulic fracturing and underground injection of wastewater causes earthquakes.

Incorrect (mostly) – in the rare instances where earthquake activity has increased, which is less than 1% of instances, the causes are very site specific and can be explained in a geologic context. Now that this is better understood, we can avoid these instances going forward.

It appears that the current set of regulations, in many instances, is based on some of these manufactured fears. Of the 30-some states that regulate the oil and gas industry, Pennsylvania is currently the third most expensive to drill in on a cost per foot basis. The misplaced fear that has been promulgated into this draft regulation will surely drive Pennsylvania to the top of the list with little to no environmental benefit....and no financial benefit to the Commonwealth. Look about 90 minutes north of here for an example of missed opportunities based on fear and misinformation.

For these reasons, the draft Chapter 78 revisions should be withdrawn and reconsidered. In the event that the draft revisions are not withdrawn, I offer the following specific comments:

Specific Comments

Here are just a few specific comments I would like to discuss:

Section 78.51 – Protection of water supplies

If an operator causes a change to the water quality of a private water supply the water must be replaced with like quality water or to the standards established under the PA Safe Drinking Water Act, whichever is better. As a professional geologist, I have been involved in many water supply investigations relating to the development and use of residential, industrial and community water supplies within the Commonwealth of Pennsylvania. My objection is that the replaced water must meet municipal drinking water standards even if the water did not meet those standards prior to drilling. Further, no domestic water supplies are subjected to this standard throughout the State. It is unreasonable to consider this regulation when there are no domestic water well construction standards. Rather, the proposed restoration standards should be made to meet pre-drilling water quality.

Section 78.52 – Predrilling or prealteration survey

The revisions in this section require the operator to submit a copy of all predrill or prealteration samples to the Department within 10 business days of assignment of an API number for the gas well that is the subject of the survey. Though I understand the Department's reasons for doing this, I would propose a different reporting milestone, such as 10 days prior to spud. The current draft language requires that pre-drill sampling be completed early in the permitting process. I have seen many instances already where the proposed milestone would exclude the sampling of many water sources through the fault of no one. I am specifically referring to instances of new wells drilled between the permit application and spud (which

is sometimes up to 24 months), real estate transactions that bring previously unused wells back into service, and landowner availability as many properties of NE and NC PA are seasonal or vacation homes where the landowners may only be available a couple of weekends a year.

Section 78.66 – Reporting and remediating spills and releases

This section requires that the operator that experiences a spill or release enter the Act 2 Land Recycling Program for remediation. The objection here is that the Department is taking a voluntary program created to encourage the reuse of blighted lands and making it mandatory for oil and gas operators. In addition, this section imposes time lines for specific actions that do not exist in the Act 2 program. This is a gross misuse of the program.

This section also establishes unrealistic reportable quantities for a brine release. Any release of 5 gallons or more must be reported to the Department. This volume is more stringent than most listed hazardous wastes. This certainly holds the industry to a higher standard than all other industries which utilize the Act 2 program. This will lead to excessive costs without a corresponding environmental benefit. A threshold value of 42 gallons is proposed to require entry into the “voluntary” Act 2 program.

Further, the requirement to report the nature of any injuries and property damage is outside of the scope of protecting the environment and should be stricken from this regulation package.

This concludes my verbal remarks. I would like to thank the EQB and the Department for holding these hearings and offering the opportunity to me to present my testimony.

Sincerely,

Timothy M. Eriksen, P.G.
Interested Citizen

Comments on PADEP Proposed Modification to Chapter 78 Regulations

Thomas D. Gillespie, P.G.
May 4th, 2015

Inflection Energy (PA) LLC
49 East 4th St
Williamsport, PA 17701

The following comments are provided to PADEP pertaining to proposed modifications to the Chapter 78 Oil & Gas regulations. A copy of oral testimony presented on May 4th, 2015 in Williamsport, is appended hereto.

§78a.1 Definitions

Other Critical Communities

This term should be eliminated from the regulations because it would unambiguously expand the Department's authority to capriciously designate special protection status to the entirety of all Earth systems at any location or within any area or region without geographic limitation. All Earth systems include the lithosphere (geology) hydrosphere (water), atmosphere and biosphere.

The plain and technical meaning of this term is that Critical Communities pertains to the consideration and protection of natural biological populations of special concern which could be impacted by land use changes associated with oil and gas development and operations. The definition as presented, however, provides for:

- the designation of any species, taxa or population as 'critical' and in need of special protection without regard to an actual listing in any special protection status or proposal;
- separate and distinct special protection designation for rocks, entire geologic formations, soil, water, air and entire geographic areas.

The proposed language of the definition is imprecise, vague, inconsistent with relevant definitions in the scientific community at large, and incorporates ostensible attributes of the natural world which are not real. Specifically, the following terms are included:

- taxa which are rare, of conservation concern, and tentatively undetermined with respect to listing under any protection system. By inclusion of this clause, the Department would have the authority to designate any population at any location as a critical community regardless of its official status;
- the entire geographic area within which a threatened or endangered species occurs. This term is without limitation and could be construed to preclude development of any kind;
- unique geologic features - an undefined, and indeed undefinable, and therefore meaningless term. There is no such thing as a definable geologic feature which could be considered unique;

- significant natural features – where ‘natural features’ is undefined and there is no caliper by which to gauge what constitutes *significance*;
- significant natural communities – which is a circular definition in that it defines the term Critical Communities using the term communities. The qualifier ‘significant’ is undefined in the definition or anywhere in the regulations. This term is also irrational because the only alternative to a natural community is an un-natural one, which would not be within the scope of the definition.

The consequence of including undefined and unreal aspects of the world in the definition is that the geology, geography, water, soil, air, and every actual biological population in virtually every area of the State can be claimed by someone, either within or from outside the Department, to be a Critical Community.

In technical terms, geography, geology and unspecified ‘natural features’ can not be defined as communities, whether critical or not. The environmental and/or ecological meaning of the term community is “*an interacting population of various kinds of individuals (as species) in a common location*” (Merriam Webster).

The Department can not capriciously define rock, soil and water as being a community for the purpose of designating an area as critical and in need of special protection. What the Department is attempting to incorporate into its concept of community is an ecosystem which is defined as “*a community of living organisms (plants, animals and microbes) in conjunction with the nonliving components of their environment,*” in which context community is defined as the “*assemblage or association of populations of two or more different species occupying the same geographical area and in a particular time*” (Cavitt, Weber Univ.)

Non-living aspects of an ecosystem can not be considered a stand-alone community with the definition as proposed and should be removed from the regulations.

§78a.66 Reporting and Remediation Spills and Releases

The Department has proposed to add the word “Spills” to the heading of the section for which there is no justifiable reason. The term ‘spill’ is undefined in any of Pennsylvania’s environmental statutes and/or regulations including those enabling or administering the Site Remediation Program, the Underground Storage Tank Program or the Land Recycling Program. Pennsylvania defines and uses the term ‘release’ and in some instances ‘discharge’ but has not and does not use the term ‘spill’.

The term ‘release’ is well-defined within the regulations such that it covers all potential discharge scenarios in a manner which has been tested and applied successfully and without contestation for decades. The term ‘spill’ is neither defined, nor proposed for definition in the Draft CH 78 regulations. It is also wholly absent from the text of Section 78a.66, in which the defined term ‘release’ is used consistently.

In the absence of any legal use of the term ‘spill’ in any relevant statute or regulation, and in the uniform usage of the term ‘release’ in preference to the term ‘spill’, even in the context of the proposed CH 78 draft regulations, there is no apparent reason for including the term in the section heading. This is especially the case because the proposed regulations are intended to be integrated with remediation requirements as established in the Land Recycling and Environmental Remediation Standards Act (Act 2 of 1995) which uniformly applies the defined term ‘release’ to the exclusion of other synonymous terms.

The proposed insertion of the undefined term 'spill' should be deleted from the final regulations.

§78a. 53 Erosion and Sediment Control and Stormwater Management

The provisions in this section that oil & gas operations shall comply with the 2010 amended Chapter 102 regulations is an acceptable modification to the regulations. However, by stipulating within the narrative of the proposed regulation those guidance documents by which operators can achieve compliance, the Department would be codifying in regulation documents which are intended only as guidance. The distinction is that guidance manuals are different than regulations in two important ways:

Guidance documents present methods to achieve compliance which are already familiar to the DEP and can, consequently, be approved with little or no deliberation, but which are not the only methods to achieve compliance. Guidance documents provide for substitution of other methods if it can be demonstrated that the same level of protection can be achieved using an alternative. If codified in regulation, the methods of the guidance documents *become* requirements;

Guidance documents can be updated to reflect advances in technology without having to go through the entire regulatory development and adoption process, thereby ensuring that the latest advances in protections are available to the regulated community.

The listing of guidance documents should be eliminated from the regulations.

§78a. 69 Freshwater Impoundments

The proposed revision to Sub-Paragraph (f) state that a determination that the base of a freshwater impoundment shall be more than 20 inches above seasonal high groundwater shall be made by:

A SOIL SCIENTIST OR OTHER SIMILARLY TRAINED PERSON USING ACCEPTED AND DOCUMENTED SCIENTIFIC METHODS SHALL MAKE THE DETERMINATION. THE DETERMINATION MUST CONTAIN A STATEMENT CERTIFYING THAT THE PIT BOTTOM IS AT LEAST 20 INCHES ABOVE THE SEASONAL HIGH GROUNDWATER TABLE ACCORDING TO OBSERVED FIELD CONDITIONS. THE NAME, QUALIFICATIONS AND STATEMENT OF THE PERSON MAKING THE DETERMINATION AND THE BASIS OF THE DETERMINATION SHALL BE PROVIDED TO THE DEPARTMENT UPON REQUEST.

There is no logical rationale to support the identification of soil scientists as qualified persons to make such a determination. Although a soil scientist can make such a determination, the remaining language of the sub-paragraph precludes soil scientists from preparing a legally binding certification of the determination. That is because Soil Science is not a regulated profession in Pennsylvania pursuant to the laws and regulations of the Department of State, Bureau of Professional and Occupation Affairs. Licensure by the BPOA provides the legal qualifications for a professional to certify the results of an investigation pertaining to conditions in the Earth, which, by statute falls within the definition of the Practice of Geology.

"Geology" means the science which treats the Earth in general, the study of the physical Earth, the investigation of the Earth's crust and the rocks and other minerals which compose it and the applied science of utilizing knowledge of the Earth and its constituent rocks, minerals, liquids, gases and other materials for the benefit of mankind.

(n) **"Practice of Geology"** means the practice or the offer to practice geology for others for a fee, including, but not limited to, describing the natural processes acting on earth materials, gases or fluids, predicting the probable occurrence of natural resources, predicting and locating natural or man-induced phenomena which may be useful or hazardous to mankind and recognizing, determining and evaluating geologic factors. The term shall also include the performance of geological service or work, consultation, investigation, evaluation, planning, mapping and inspection of geological work required in implementing the provisions of any Federal or State law or regulation or the provisions of any ordinance, code, rule or permit required by any local political subdivision. The term shall not include the practice of engineering, land surveying or landscape architecture for which separate licensure is required.

Engineer, Land Survey and Geologist Registration Law Act of May 23 1945 (as amended) P.L. 913 No. 367
Cl. 63

To provide for the certification of such determinations as required in the sub-paragraph, licensed design professionals (engineers, geologists) are required to sign and seal all work product (Section 7 of Act 367).

The clause **"THE DETERMINATION MUST CONTAIN A STATEMENT CERTIFYING THAT THE PIT BOTTOM IS AT LEAST 20 INCHES ABOVE THE SEASONAL HIGH GROUNDWATER TABLE"** should be removed from the proposed regulation to avoid a situation in which the Department has no recourse to hold to account unlicensed persons who have no legal authority to certify any condition in the field.

No suggestion is made herein that a soil scientist would be unqualified to make such determination. The intent of this comment is to ensure uniformity with exiting licensing laws.

Montrose Area Chamber of Commerce
PO Box 423
Montrose, PA 18801

May 4, 2015

Tammy Bonnice, a mother and Montrose Chamber President. Born and raised in a small town in Susquehanna County.

I'm speaking on behalf of two very important parts of my life. My children and my community.

I can tell you the same things that you read in the papers, I can tell you what others are saying. Well over 200,000 jobs have been created in Pennsylvania. We now produce over 25% of the United States natural gas supply. Which in turn has lessened our dependence on foreign countries. Natural gas is a clean burning fuel. It has improved our air quality. Over \$2.3 billion in additional tax revenue has been generated by shale development. I can read facts and statistics all day on how the production of natural gas is beneficial. But let me now tell you how it affects me as a parent and a community leader.

As a parent we always want our children to have the opportunity to stay in the area if they choose to or find another corner of the world to call home. With the production of natural gas that opportunity was given to our next generation. As a mother of two boys one stayed in the area and one didn't. The oldest one that stayed, owns a bluestone quarry that produces bluestone. He is able to support his family because of the industry indirectly buying his product. My youngest son went on to further his education and became an engineer. But because of the gas industry and the summer internship that they offered him he graduated with little debt and has a job with a very promising future in a field that continues to grow. Because of the gas industry our children and grandchildren can choose their futures.

As president of Montrose Chamber, board member of Wyoming County Chamber, and a very active committee member for many non-profit organizations located in these counties. I have lived in this area my entire life. This is my home. This is my investment.

I have seen the different trends of income. Farming – stone quarries – and now gas industry. I've seen a lot of hard times for a lot of residents. I've seen people sell off parts of family farms because their milk checks are smaller than their feed bill. Family owned stores going out of business because of the lack of customer spending. People living paycheck to paycheck and not making ends meet. Parents taking out huge student loans to give their children the education and opportunity that they didn't have.

But then the Marcellus Shale was discovered in the Northeast and production of natural gas became part of our everyday lifestyle and the economic growth from natural gas production has translated into increased income for families and local businesses. Both the nonprofit and the profit world have benefited from this industry in our area. Family farms are running full force and being passed down to the next generation. Families are taking vacations together. Residents are more involved in the community and donating time and money to the non-profits. The privately owned trucks are all working year round not just seasonal and many increasing their fleets to help build the well pads.

There has been over \$830 million in impact taxes distributed to local communities and environmental programs, and over \$2.3 billion in additional tax revenue that has been generated by shale development.

Pennsylvania already has world class environmental regulations in place. These regulations have been reviewed by the State Review of Oil and Natural Gas Environmental Regulations board. The changes to Chapter 78 are targeting only the oil and gas industry. Why single out one industry?? And because of this Pennsylvania will become less competitive with other shale basins. This would be devastating to PA which has experience an impressive economic growth.

So as a mother, a residents, a community leader I stronger suggest that you reconsider the changes to Chapter 78. The natural gas industry is a positive force for our environmental, our economy, and our future for Pennsylvania.



Consulting Engineering
Environmental Services
Construction Inspection

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May 4, 2015

DEP Policy Office
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Chapter 78 Hearing Testimony

McTish Kunkel & Associates is an engineering and environmental services firm with 3 offices in Pennsylvania. The Montoursville was established 13 years ago and provides services to numerous clients throughout Central Pennsylvania as well as all natural gas related clients in Pennsylvania, Ohio and West Virginia. In 2008 prior to the onset of natural gas exploration and development in Central PA we employed 20 people at the Montoursville office. By 2012 we had grown to 90 employees at this location as a direct result of our involvement in the natural gas industry. These are good jobs that have been filled by local people and include engineers, surveyors, biologists, environmental scientists, technicians and construction inspectors. More than 50 of these positions are filled by people who were educated locally at the Pennsylvania College of Technology. Today, although there has been a substantial reduction in gas development in Central PA, we employ 70 at the Montoursville office where most are still dedicated to support of the natural gas industry. This work is performed in Central and SW Pennsylvania, Ohio and West Virginia. Our firm has benefited greatly from the development of natural gas and we hope to continue this relationship for a long time to come.

In addition to our personal benefits shale gas development is positively impacting Pennsylvania and our country.

Shale gas development is supporting and has made more secure over 200,000 Pennsylvania jobs.

\$830 million in impact taxes will be distributed to local communities and environmental programs, and over \$2.3 billion in additional tax revenue has been generated by shale development.

Pennsylvania now produces 25% of the U.S. natural gas supply, which has lessened our dependence on foreign energy sources.

Pennsylvania residents are benefitting from energy prices which are more than 40% lower than the onset of significant shale gas production in 2008, saving homeowners and businesses billions of dollars annually.

Natural gas is a clean burning fuel source, accounting for nearly 25% of our electric generation supply and heating homes of over 5 million Pennsylvanians. It has contributed improved air quality in Pennsylvania due to significantly less volatile organic impounded, nitrogen oxide (affecting smog and asthma) and carbon emissions.

Pennsylvania already has world class environmental regulations that have been a model for states across the nation. These regulations have been reviewed and praised by the independent STRONGER board (State Review of Oil and Natural Gas Environmental Regulations). Additional and more stringent regulations are not necessary and will only inhibit the further development of this valuable resource and hinder what should be the goal of every resident of Pennsylvania and our country:

“ENERGY INDEPENDENCE”

However, if you must develop more stringent or additional regulations that will impact the development of natural gas, I implore you to base your decisions on fact rather than emotion, on science rather than with arbitrary information and be well defined rather than ambiguous.

Additional deficiencies of the proposed rulemaking:

It appears that DEP has failed to conduct a cost-benefit analysis for the proposed changes to this rule and they have they have not conducted an analysis of the impact on small businesses, both of which are required by law.

It appears that DEP is sidestepping the ability of the legislative oversight committees and the Independent Regulatory Review Commission to formally comment on the sweeping regulatory changes proposed in the Advanced Notice of Final Rulemaking.

It appears that this rulemaking will result in significant compliance costs at a time of historic downward commodity price pressures, making Pennsylvania less competitive with other shale basins while providing little if any commensurate environmental benefits.

It appears that the rulemaking contains standards applicable only to the oil and gas industry. There is no justification for singling out one industry for burdensome rules that do not apply to other industries. This includes wastewater treatment; noise standards; new storage tank standards; and waste reporting.

Members of the regulated community are negatively impacted by not being allowed to review the comment and response document from the proposed rulemaking that DEP is required by law to share.

It appears that several standards being proposed by DEP are not authorized under law, including new limitations regarding 'public resources', as this provision was struck down by the Supreme Court.

Sincerely,

McTISH, KUNKEL & ASSOCIATES



John P. Ryan, P.E., P.L.S.

Regional Manager

JPR:dd

MY NAME IS **GARY METZGER** AND I WANT TO THANK YOU FOR THE OPPORTUNITY TO PROVIDE INPUT AT THIS HEARING ON THE CH 78A REVISIONS TO THE DEPARTMENT'S OIL AND GAS REGS. **I SERVE AS THE PRESIDENT OF THE LYCOMING AUDUBON SOCIETY AND I HAVE BEEN AUTHORIZED BY UNANIMOUS VOTE OF OUR BOARD OF DIRECTORS TO OFFER TESTAMONY HERE ON BEHALF OF OUR CHAPTER'S 425 MEMBERS IN LYCOMING AND CLINTON COUNTIES.** WE ARE A CHARTERED LOCAL CHAPTER OF THE NATIONAL AUDUBON SOCIETY AND OUR MISSION IS TO CONSERVE AND RESTORE THE NATURAL ECOSYSTEM FOR BIRDS AND OTHER WILDLIFE FOR THE BENEFIT OF HUMANITY AND THE EARTH'S NATURAL BIOLOGICAL DIVERSITY. WE LIKE TO THINK THAT THE CONSERVATION WORK THAT OUR VOLUNTEERS DO MAKES OUR TWO COUNTIES BETTER PLACES TO LIVE. SO, ON BEHALF OF THE BIRDS AND OUR MEMBERS I OFFER THE FOLLOWING:

I HAVE REVIEWED THE REVISIONS TO 78A AND ALMOST UNIFORMLY THEY REPRESENT AN IMPROVEMENT ON THE EXISTING REGS GOVERNING THIS INDUSTRY. WE RECOMMEND THAT THE DEP ADOPT AS FINAL RULEMAKING THIS PACKAGE OF 78A REVISIONS. IF REVISIONS ARE MADE, THEY SHOULD ENHANCE THE REQUIREMENTS AND PROTECTIONS, NOT LESSEN THEM.

WE HERE IN LYCOMING AND CLINTON CO.'S LIVE IN THE HEART OF THE MARCELLUS GAS PLAY AND OUR MEMBERS READ PRACTICALLY EVERY WEEK, OR SEE FIRST HAND, SOME FAILURE OF THIS INDUSTRY, AND BY EXTENSION, FAILURE OF THE EXISTING REGULATIONS, TO PROTECT US AND THE ENVIRONMENT. A CASE IN POINT IS PROVIDED BY THIS ARTICLE FROM THE LOCAL SUN-GAZETTE NEWSPAPER REGARDING THE DISCOVERY OF METHANE GAS IN SUGAR RUN NEAR HUGHESVILLE. IT TURNS OUT THAT DEP HAS BEEN AWARE FOR 3 YEARS OF GAS MIGRATING FROM A RANGE RESOURCES WELL AND CONTAMINATING 5 NEARBY WATER WELLS. THREE YEARS LATER AND PENN STATE AND USGS FIND THE SAME GAS NOT ONLY IN THE WATER WELLS BUT IN SUGAR RUN. METHANE IS A FLAMMABLE, EXPLOSIVE GAS, AND A POTENT GREENHOUSE GAS, PRESENT IN OUR WELLS, IN OUR CREEK WATER AND IN OUR ATMOSPHERE. **3 YEARS, A WORSENING PROBLEM AND NO FIX IN SIGHT!** IT REALLY DOESNT TAKE AN ADVANCED DEGREE TO SEE THAT SOMETHING IS MISSING FROM THIS INDUSTRY'S PRACTICES AND FROM OUR REGULATION OF IT. I BELIEVE THAT THE NEW REVISIONS WILL AT LEAST HELP DEP CORRECT THIS SORT OF THING.

AGAIN, THIS IS JUST ONE OF MANY, MANY LOCAL INSTANCES OF ENVIRONMENTAL AND PUBLIC HEALTH PROBLEMS THAT HAVE OCCURED IN RECENT MONTHS AND YEARS AND WHICH CANNOT CONTINUE IF THIS INDUSTRY IS TO THRIVE AND WE RESIDENTS ARE TO BE PROPERLY PROTECTED.

A FEW THINGS I REALLY LIKED IN THE REVISIONS:

--REQUIREMENT FOR NOISE MITIGATION PLANS FOR GAS OPERATIONS

--BETTER AND MORE SPECIFIC REQUIREMENTS THAT THE INDUSTRY REPLACE NEGATIVELY AFFECTED WATER SUPPLIES WITH A SUPPLY THAT IS AT LEAST EQUIVALENT TO THE ORIGINAL. SPECIFIC DEADLINES ARE ESTABLISHED FOR INDUSTRY TO PROVIDE NOTICE OF AFFECTED SUPPLIES AND FOR DEP TO INVESTIGATE AND REQUITE MITIGATION.

--A REQUIREMENT THAT THE INDUSTRY DO MORE TO IDENTIFY OLD, 'ORPHANNED' WELLS IN THE AREA PROPOSED FOR DRILLING, INCLUDING ALONG THE COURSE OF ANY HORIZONTAL

WELL BORE, BEFORE DRILLING BEGINS. SUCH OLD WELLS ARE KNOWN TO HAVE BEEN INVOLVED IN PREVIOUS GAS MIGRATION EPISODES

--BETTER EROSION AND SEDIMENTATION CONTROLS AND STORMWATER MANAGEMENT FOR ALL OIL AND GAS OPERATIONS

--OPEN, LINED EARTHEN PITS FOR STORAGE OF CONTAMINATED WASTEWATER AT INDIVIDUAL DRILL SITES WOULD HENCEFORTH BE PROHIBITED. OLD PERMITTED PITS MUST BE DECOMMISSIONED AND CLEANED UP. **WONDERFUL! OPEN PITS ARE HAZARDOUS TO WILDLIFE AND PEOPLE, AND THEY LEAK AND OVERFLOW.**

--OPEN PITS FOR THIS MATERIAL WOULD STILL BE PERMITTED AT CENTRALIZED LOCATIONS, BUT THE DESIGN, CONSTRUCTION AND MONITORING STANDARDS WOULD BE BEEFED UP CONSIDERABLY. **LYCOMING AUDUBON BELIEVES THAT THE RISK TO WILDLIFE FROM THESE OPEN PITS, TO GROUND AND SURFACE WATERS OF THE COMMONWEALTH, AND TO HUMAN HEALTH, ARE UNACCEPTABLE AND THAT THE REGS SHOULD SPECIFY MANUFACTURED TANKAGE FOR ALL GAS INDUSTRY WASTEWATER. IF THE DEPARTMENT DETERMINES THAT THIS TANKAGE REQUIREMENT IS NOT FEASIBLE AT THIS TIME, THEN THEY MUST STICK TO THE TOUGHER STANDARDS IN DRAFT 78A FOR THESE OPEN CENTRALIZED PITS!!!!**

--THERE ARE BETTER REQUIREMENTS AND STANDARDS FOR THE DEPARTMENT'S REVIEW OF WATER WITHDRAWAL PERMIT APPLICATIONS. ALSO THERE IS A WRITTEN REQUIREMENT THAT THE INDUSTRY UNIFORMLY REUSE THE WATER THAT THEY DO WITHDRAW. MORE WATER REUSE MEANS LESS WATER WOULD NEED TO BE WITHDRAWN. **GOOD STUFF!**

--AS I READ 78A.70, THE USE OF DRILLING BRINE WASTE ON DIRT AND GRAVEL ROADS FOR DUST CONTROL AND ROAD STABILIZATION WOULD NOW BE ILLEGAL. **BRAVO!! THE IDEA THAT YOU COULD SAFELY APPLY THIS CHEMICALLY LADEN, TOXIC AND RADIOACTIVE WASTEWATER TO OUR ROADWAYS WAS ALWAYS SIMPLY RIDICULOUS.**

FINALLY, I WOULD THINK IT WOULD GO WITHOUT SAYING THAT ADEQUATE STAFFING AT DEP IS A MUST IF THERE IS ANY HOPE OF THESE REGULATIONS MAKING A POSITIVE DIFFERENCE IN THIS COMMONWEALTH. WITHOUT A STABLE, TRAINED STAFFING COMPLEMENT, DEP CANNOT PROPERLY ENFORCE ITS STATUTES AND REGULATIONS.

AGAIN, THANK YOU FOR THE OPPORTUNITY TO SPEAK HERE.

RESPECTFULLY SUBMITTED,

**GARY L METZGER, PRESIDENT
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Comments to the revision of part 78A for unconventional gas drilling:
Quality of Life Issues

1- I live in the Pine Creek Valley on Okome Mountain. Most people deal with only one or several well pads at a location. However, the permitting process on state forest and state game-lands seems different. Many well pads, wells, retention ponds, collector pipelines, access roads, and now compressor stations are in one area. The conversion of ground use and water use in our area is unprecedented in my lifetime (3 coffer dams in Pine Creek with 2 more approved, [the one new permit allows up to 1.5 million gallons per day]). This was a recreation area. All the ground in this area was classified as forest reserve; now it is nothing more than an industrial site on the top of a mountain. As of today we have 12 pads with about 100 wells, 4 (15 million gallon) "fresh" water ponds, an open pit used flow-back storage pond, a truck and equipment storage area, and miles and miles of collector pipelines and access roads. This is just on the state forest ground to the south of our house; now they are starting to the north side. Where was or is the cumulative analysis of the issues from this much development and pollution on previously untouched forested ground and head water streams ?

A.-- One of the concerns is noise. If the well sites were located at a greater distance from residences (or in my case hunting camps) the noise would be mitigated just by distance. They are now able to drill over a mile horizontally, there's no reason to place a pad closer than ½ mile from a residence. Part of the noise is on-site massive generators, these run 24/7 almost from the time of pad development until the pad is complete with pipelines, dehydrators, evaporators and whatever else. This does not even consider the truck traffic which is also 24/7; -this year even Easter Sunday- clanging of pipes and equipment, back up alarms and loud roars of diesel motors. Pad creation does not happen in a short period of time. Start to finish it takes over 6 months to develop a pad on a wooded site with 8-10 wells on it. Then you get into the routine maintenance of the pad, more truck traffic. Some of the pads in my area have been there for 6 years and trucks continue to go to them almost daily. Beside the noise you also get dust and diesel fumes, which goes into the second issue.

B.-- Air quality in our area has gone from great (go out and smell the pine in the air) to-- at times I don't even want to go outside for dust and odors; not just diesel fumes, but at times chemical smells. It even gets down to the welding of the pipes with the stink from the welding and the generators on the welding trucks. Now we go to the central waste impoundments. This was not permitted on state forest so they bought a 31.5 acre private property adjacent to state forest ground and hunting camps; got a county variance to place a central waste water impoundment and a staging area for equipment. More trucks and noise 24/7. It is an open pit that holds 3.5 million gallons of waste water. You can do the math figuring how many truck trips at 3,500 gallons per truck (it has been filled and emptied at least 3 times). Plus all the trucks bringing equipment for storage I.E.: excess gas pipe, inter-duct, water pipes, stone, and other equipment. More consideration is given to the gas companies than the residents that have to put up with it. The philosophy is: if you don't like it, just move.

C.-- In my opinion part of the planning process for the permitting of gas drilling should be a contact and evacuation plan. Should there be a fire, chemical release, spill, or explosion, nothing is in place to contact the local people. Basically there is one good route in and out from these drilling sites and houses.

In conclusion: More consideration is given for gas drilling jobs (mostly out of area people), and special interest money than the environment you folks were put in place to protect. Where is the relaxing atmosphere for future generations in our area. This was the reason I personally enjoyed coming here and moved here years ago prior to any gas drilling. We have no daily quality of life left in our area.

Thanks for your time, Bob Deering.

DEP Public Comments

May 4, 2015

Good evening

My name is Tyler Martin. I'd like to speak to section 78.65. It contains many new provisions. Among other things the site restoration provision would now require compliance with the Post Construction Stormwater Management provisions found at section 102.8 (g). The stormwater analysis and construction that would be required are expensive and complex. These requirements are traditionally associated with large construction such as a Wal-Mart parking lot. In the past, the timber industry and the conventional oil and gas industry have not been included in this requirement because of their small footprint.

I can understand why the proposed regulations would call upon Pennsylvania's new unconventional industry to comply with this stormwater analysis obligation. A typical Marcellus pad and access facilities are more than 5 acres in size and are usually constructed of impervious materials. However, conventional oil and gas sites are much different. They are only about 2% to 3% the size of a Marcellus facility. And nearly all of the conventional area achieves a vegetative state, thus making it quite different than the impervious area at a Marcellus facility.

I was at last Thursday's hearing in Warren and I was shocked to hear some of the numbers from the cost estimate to comply with the stormwater requirement. I obtained a copy of that cost estimate. I want to quote some numbers from it:

- a) Engineering services to prepare PCSM Plan alone ranges between \$10,000 - \$15,000
- b) Engineering services to prepare NPDES permit application: \$2,000-\$5,000
- c) Construction cost for stormwater BMP's: \$10,000 - \$50,000

The total cost for a new conventional well ranges between \$20,000 and \$70,000.

To put this in perspective, the current total cost for a new conventional well is a little over \$100,000. The new stormwater cost, ranging between \$20,000 and \$70,000, would be an increase of 20% to 70% for a new conventional well. A 20% to 70% cost increase would be a staggering number to any industry's bottom line. But the conventional industry is already struggling under the cost of added regulations and lower commodity prices. New conventional wells in Pennsylvania have been dropping for several years, from 5000 new wells a year in 2008 to less than 1000 wells last year.

The new cost of \$20,000 to \$70,000 for stormwater analysis and construction is especially troubling since there is no justification for the increased stormwater regulations on the conventional industry. In fact, I want to testify about the Allegheny National Forest. There are about 12,000 conventional wells in production on the Allegheny, and the national forest makes an excellent laboratory to study the impact of conventional oil and gas operations on stormwater. In 2007 the Forest Service characterized the water quality on the ANF as "among the highest in the state." In November, 2014 the Forest Service released its five-year Monitoring and Evaluation Report for the period from 2008 through 2013. It focuses on oil and gas development and concludes that "the Majority of streams on the ANF are

meeting state water quality standards." Of the 2,126 miles of mapped streams within the ANF, 72% are rated high quality or exceptional value streams for water quality. The report concluded that these macroinvertebrate studies "...did not detect a negative impact to water quality from this development".

In contrast the DEP has not stated any need for imposing the stormwater and construction requirements. Where is the DEP's study? How does the DEP answer the findings of excellent water quality contained in the Allegheny National Forest study?

I decided to make the 3 hour drive to Williamsport because the financial information about the new stormwater requirement is so compelling. Right now, with the current price of oil and gas, there is virtually no conventional drilling going on in Pennsylvania. And if prices return to a higher level there will still be no new conventional drilling if the new conventional regulations are adopted. The stormwater analysis and construction provision alone will prevent new conventional drilling.

But the stormwater provision is only part of the story. The proposed conventional regulations would impose tens of millions of cost for several other sections. The total new costs are hundreds of millions of dollars for a small industry that only generate a few hundred millions of dollars per year. The scope of the new regulations is grossly out of balance with the scope of the conventional industry.

I know about that scope. At Slippery Rock University I studied Geographical Information Technology and Environmental Geoscience. I chose that career because I care about water quality, sound management of trees, and wildlife.

I have worked in both the unconventional and conventional industries and I can attest they are very different. Unfortunately, the proposed 2015 conventional regulations still read as though geared to the complexity and scope of the unconventional side of the industry.

I urge the EQB to vote no and for the DEP to start new, and truly separate, process for conventional regulations.

Testimony Regarding Revisions to the Environmental Protection Performance Standards at Oil and Gas Well Sites (Chapter 78 and 78a) by John Stewart

Pennsylvania DEP Public Hearing
Monday, May 4th, 2015
Williamsport, PA

Good evening.

My name is John Stewart. I am a 26 year old resident of Northwestern Pennsylvania, where I work full-time for a locally owned and operated conventional oil and gas well production company. In my spare time I also operate my own conventional oil and gas production company which I started 3 years ago, consisting of 19 wells, myself, and one part-time employee, and from which I draw no salary. It is a true labor of love.

As I previously stated in testimony provided at a public hearing regarding the 2013 version of these regulations, what the DEP proposes is far out of context with what is necessary for our industry. In fact, although required to by law, the DEP completely fails to provide a statement of need for new regulations for the conventional industry. Without conducting a careful analysis of research, documentation, and data on the industry in order to provide this required statement, showing a necessity for new regulatory power, how can the DEP even expect to come close to proposing meaningful regulations?

In addition to the failure to provide an analysis of the need for regulatory change, the DEP also fails to fulfill another requirement of the law, which is special consideration for small businesses. According to the Pennsylvania Small Business Act, before new regulations can be imposed, they must be analyzed specifically for the effect they will have on small businesses. The Act states that “small businesses bear a disproportionate share of regulatory costs and burdens”, and that “agencies should seek to achieve statutory goals as effectively and efficiently as possible without imposing unnecessary burdens on small businesses.” The DEP has not

offered any special consideration for small businesses in the form of alternative, more relaxed performance standards, or otherwise. In addition to their impact on small businesses, such special considerations are meant to be analyzed for their ability to remain true to the stated objective of the proposed regulations. Again, how can the DEP expect to analyze the effectiveness of considerations for small businesses, when it has already failed to state the necessity and objective of new regulations?

Despite widespread testimony describing the multitude of ways that the 2013 proposed regulations were wildly out of context for the conventional industry, these 2015 revisions are in many cases even further from the land of practicality. For instance, the new requirement that drill sites be returned to original contours, does not make any sense for our industry. We drill well sites on slopes where the contours absolutely must be changed in order to have flat ground to operate on. With perhaps the exception of sites that were originally flat or very nearly flat, not only will this requirement be extremely costly, it will in many instances be simply unattainable. As another example, the new requirement for site specific PPC plans is out of touch for an industry which is composed of hundreds of thousands of highly similar sites, producing and storing small amounts of the same materials. Under existing regulation, the lack of variation between sites has allowed for the efficient use of generic PPC plans containing the pertinent information required in case of emergency. What advantage will site specific PPC plans provide, when individual sites are virtually identical? As with many other examples which I could list, the DEP fails to consider the enormous cost of implementing such regulations, while simultaneously failing to demonstrate the benefit.

With all of these failures: the lack of demonstration of necessity for new regulations, lack of consideration for small businesses, and lack of cost versus benefit analyses, how can I hope for anything but failure from these proposed regulations? When it comes to Conventional oil and gas, all the DEP has demonstrated is disregard for proper procedure and an unwillingness to consider the operational practicalities of a long established industry. I ask the DEP to regulate my job and my business, not destroy them.

Thank you.

May 4, 2015 DEP Public Hearing on Chapter 78

Testimony by Paul Hart

Good evening.

My name is Paul Hart, and I have been providing water treatment services for the Oil and Natural Gas Industry in PA, for 30 years.

I attended Lycoming College, and my wife grew up in the Williamsport area. I own two farms in PA that have natural gas wells. I also have water wells on my property for my domestic water. All this means I am local, I have experience, and I know firsthand that oil and natural gas development does not hurt the land, air, or water, IF the existing laws are enforced.

I am part owner of Fluid Recover Services, has four water treatment facilities in PA. We have been in business for decades because the energy industry needs to manage water, and because we have had reasonable permits from the state that determine how we manage that water. We have continuously made changes to our processes and services over the years to ensure we are compliant with our permits while serving our customers. We have effectively treated over one billion gallons in the last 30 years, allowing Pennsylvania resources to be developed and delivered to all of us in this room to heat our homes and power our lives.

FRS employs 32 full time, and has a goal to renew our permits and install new technology to meet the current 500 Total Dissolved Solids requirements implemented several years ago. It should be noted that the only the Natural Gas Industry is held to this standard in Pennsylvania – all other discharges to Pennsylvania's water are allowed to dispose at higher levels. In order for us to invest in new technologies, we need cooperation with the state. The new technology is expensive and takes over a year to design, manufacture, and install. To make this investment we also need a healthy industry, able to afford the higher costs associated with higher quality treatment.

The Chapter 78 Final Rulemaking, if implemented as currently written, will have little or no significant benefit to the commonwealth, but it will risk ongoing investment in the PA oil and gas industry and will cause the loss of jobs.

In 2013, DEP did not include most of the recommendations from the Technical Advisory Board. Any revisions to Chapter 78 should include the recommendations from the Technical Advisor Board, and the newly formed Conventional Oil and Gas Advisory Committee. The State should continue to abide by due process it has followed in the past by involving all stake holders which it is undertaking by engaging the Conventional Oil and Gas Advisory Committee. The Chapter 78 Final Rulemaking should not be rushed, otherwise; we risk the loss of both new energy production and the Pennsylvania-based service companies that depend on a healthy oil & gas industry.

The overall economic situation the industry is currently experiencing due to extremely low prices for oil and Natural Gas should be factored in. Drilling is at a record low, and hundreds of industry staff are being laid off. Many of them are my friends, and I personally talked to a friend last week who said he was leaving PA to a family sustaining job in Florida, due in large part to the uncertainty associated with today's policy climate. The state must make a full technical and economic evaluation to justify the benefit of additional requirements, before causing additional economic hardship. The state must consider the impact to small business instead of amending the regulations in a vacuum.

Thank you for the opportunity to comment.

Written Testimony of Deborah J. Nardone
120 Nea Yuka Street
Port Matilda, PA 16870
814.932.6668

May 4, 2015

Re: PA Chapter 78 Oil and Gas Regulations

Thank you for the opportunity to provide comments on Pennsylvania's Chapter 78 rules that govern how oil and gas production is regulated. It's clear that fracking is an inherently dangerous process -- occurring with inadequate regulations and enforcement while harming public health in Pennsylvania and all across the country.

I welcome the improvements to this new draft of the Chapter 78 rules proposed by the Pennsylvania DEP. It is imperative that the DEP step up and be willing to address the numerous pollution problems that have resulted from this highly industrial process occurring in thousands of backyards across the state.

In 2014, the PA DEP found that 243 private drinking water wells had been contaminated by drilling and fracking since 2008. And these are just the cases we know about, where landowners haven't been gagged by industry lawyers from allowing these records to be public, just so they can have their drinking water supply restored. Travel to Dimock -- or many other places in the state -- and residents still don't have potable drinking water. This is outrageous and inexcusable.

Just a few weeks ago -- PA DEP announced that records from 2013 show increases in emissions and contaminants from fracking and associated infrastructure. Toxic levels of sulfur dioxide, known to cause respiratory problems like asthma, increased 57% in one year at the state's production sites. And while air quality is improving due to the decline in use of other dirty fossil fuels, Pennsylvania shale gas emissions continue to increase.

It's time to reign in the rouge oil and gas industry.

Smart decision makers have taken the time to assess the impacts of fracking before allowing their constituents become guinea pigs for industry. Maryland's Governor is about to sign a 2.5 year moratorium on shale gas development. The process has been banned entirely in NY and Vermont due to significant concern over the long-term public health impacts that come with fracking.

So, while the best place for all dirty, dangerous fossil fuels, including fracked gas, is in the ground -- I applaud PA DEP for taking some important steps to better protect public health and the environment. Until we have the political power to end this dangerous process altogether,

it's urgent that the PA DEP quickly adopt these rules, along with making some needed improvements, as I've outlined in my written submission. These improvements include:

- Adoption of no open pits or tanks for storage or treatment of wastes. All tanks must have proper lids and emission reduction technology;
- A mandatory 1 mile setback of all new wells, waste storage facilities and any other downstream infrastructure for the production or transport of dirty fracked gas from schools, playgrounds, day cares and hospitals to protect the health of our children and at risk populations;
- Industry must identify, plug and seal abandoned and orphaned wells prior to well construction and drilling;
- DEP should require all oil and gas development -- whether conventional or unconventional -- comply with these rules; and
- Last, PA DEP must prohibit the land application or surface spraying of brine or other oil and gas production wastes.

Additionally, I urge the PA DEP to further engage on implementing many more public health protections, including:

- Rigorous methane control requirements at the well head and for associated downstream infrastructure, such as compressor stations.
- The Wolf Administration, PA DEP and the PA Dept. of Health should fund and conduct a rigorous, peer reviewed public health study that identifies the impact of fracking on public health.
- All public lands and the Delaware River Basin should remain off limits to drilling until the public health study can determine whether fracking can be done safely or not.

Thank you for the time and opportunity to testify.

1. Standards for frack pits and impoundments (Sections 78.56, 78.57, 78.58, and 78.59).

Prohibit operators from using ANY open-air pits and tanks, regardless of size or location, for storage and treatment of regulated wastes, including wastewater, drill cuttings, and substances (like gels and cement) that return to the surface after fracking. The new revisions prohibit the use of production pits at shale gas well sites, an important change that should be supported. But the use of huge impoundments to service multiple wells would still be allowed. Waste should be stored and treated only in closed, aboveground systems.

Require all waste impoundments to be properly closed immediately upon the effective date of the regulations. The revisions give operators 3 years to either properly close their existing

impoundments or bring them under compliance with the construction requirements in residual waste permits. This is an improvement but still puts nearby residents and the environment at risk.

Require that tanks used for the storage of waste be completely enclosed. The revisions give operators the option of using tanks “without lids” to store waste on well sites—making it more likely that polluting spills and emissions will occur.

2. Definition of public resource (Section 78.15, 78.57, 78a.15, 78.57a)

DEP has added schools to the list of public resources that require additional consideration when permitting oil and gas wells and longer setbacks of waste storage from school buildings, parks, and playgrounds. This is a positive step, but is not sufficiently protective. While there is no scientifically established “safe setback” beyond which there aren’t health risks from oil and gas development, the distances in the regulations (200 feet and 300 yards) are far too little to offer even limited protection.

To improve protection from pollution, noise, and light and safety from traffic, accidents, and explosions, DEP should require, at minimum, a **one-mile setback of oil and gas wells, waste storage facilities, and any other infrastructure from the property boundary of any school property.** This setback should also be applied to locations where other vulnerable populations reside, including nursing homes, hospitals, day care centers, and communities at a disproportionate risk of health impacts (such as environmental justice areas).

3. Identification of orphaned and abandoned gas and oil wells (Section 78.52a.) Operators of unconventional wells are required to identify the location of old wells before drilling new ones, an important change that should be supported. An estimated 200,000 abandoned wells exist statewide. As drilling spreads and intensifies, so does the chance of accidents, blowouts, and pollution from the intersection of new wells with old ones. DEP should expand these changes and require operators to:

Identify existing wells through onsite inspection before site and well construction and drilling so that the location of a new well can be changed if needed.

Plug and seal or otherwise appropriately address abandoned and orphaned wells according to state safety standards *prior* to new well site construction. The state lacks funding to address the large number of old wells, so drillers should be responsible for preventing water and air pollution when accidents occur.

4. Separation of unconventional and conventional regulations

DEP is required by law to issue two sets of regulations—but that doesn’t change the agency’s mandate to develop regulations that protect people and the environment. Sometimes the

only difference is the scale of operations. Conventional wells also use water and chemicals, create waste, and disturb land. Conventional operators also cause spills, accidents, and contamination. Due to the inherent risks of all oil and gas development, DEP should require *all operators of all wells* to:

End the use of all open-air production pits for the storage of waste and immediate conversion to closed tanks. DEP is proposing to continue to allow conventional operators to store their waste in pits and to bury waste at well sites. Many spills, leaks, and other problems involving conventional pits have occurred statewide. If the waste is potentially toxic and harmful to water, air, soil, and health, the type of well it came from shouldn't determine how it's managed and where it ends up.

Develop water management plans that specify the source and volume of the water used in site construction, drilling, hydraulic fracturing, and site restoration. This would be required for unconventional but not conventional operators. All gas development requires large volumes of water and withdrawals can harm streams, rivers, and aquifers. There is no logical reason to let conventional drillers off the hook for planning and documenting their water use.

Prohibit the road-spreading of brine. DEP would continue to prohibit the use of wastewater (brine) from unconventional wells as a de-icer and dust suppressant, but continue to allow waste from conventional wells to be used for these purposes. Brine contains chemicals, hydrocarbons, and salts regardless of the type of well it comes from. DEP has set limits on contaminant levels in the brine, but has not provided scientific evidence that road-spreading is safe for water, vegetation, and wildlife—especially over large areas for prolonged periods of time.

5. Transparency and access to information

DEP proposes to require oil and gas operators to file permit applications and required reports electronically. This change would improve data, efficiency, and enforcement and should be supported.

DEP should also make sure that all electronic filings and reports made by operators are also available to the public on DEP's website on the same day they are deemed complete by DEP. Easy and timely access to information by the public is necessary to ensure agency transparency and operator accountability.

TESTIMONY GIVEN ON MAY 4, 2015 IN WILLIAMSPORT, PA

I am testifying to urge that the strongest possible regulations be placed on the gas industry. I have concluded from all that I have read that fracking cannot be done safely and there should be a moratorium and all new fracking until the industry can demonstrate without question that it can be done safely. Over 400 studies alone have concluded that fracking has human health consequences. It causes pollution of water and the air.

The first and only duty of the Department of Environmental Protection is the protection of the biosphere and all its inhabitants including humans. It has no duty to protect the profits of the gas industry. While the industry wants to externalize its cost to the citizens of our state, protecting the environment should be a legal and moral cost of doing business. If industry can't do this, then they should not exist.

While I would hope that there would be a moratorium on fracking, until that happens we should have the strongest protections possible. The industry in no way should determine what those regulations are. Their only legal obligation to their shareholders is profit, and they pursue that profit by dumping their costs on us and the environment. As Barbara Kingsolver has written, "Global commerce is driven by a single conviction: the inalienable right to earn profit, regardless of the human costs." The carbon extractive industries have proven this again and again. Their cries that the regulations cost too much should fall on deaf ears.

I support strong regulations on the gas industry:

- Operators should be prohibited from any open air pits or tanks for the storage and treatment of any regulated wastes. They are known to leak. This should be applicable regardless of size or location.
- These regulation should apply to all drillers including conventional drillers.
- All waste impoundments must be properly closed immediately on the effective date of the regulation.
- Because of all the potential risks involved with all oil and gas wells, waste storage facilities, and other infrastructure, they're should be a minimum set-back of one mile from any school property. The current set-backs aren't sufficient.
- All abandoned and orphaned wells must be identified before site construction, well construction, and the beginning of drilling.
- Conventional drillers must also develop water management plans. All gas operations require large volumes of water and there is no logical reason why conventional drillers should not be required to plan and document water use.
- Because Brine contains harmful chemicals and salts, it should not be used as a de-icer or a dust suppressant regardless of the type of drilling operation.
- All those who have had their water supplies affected by drilling should have clean, potable water supplied immediately.
- Noise controls should be required. People living near well pads should not have their quality of life deleteriously affected so that others can profit.

- **DEP should require all permit applications of the gas and oil industry to be filed electronically. These applications should be made available on DEP's website on the day the application is deemed to be complete.**

Again, protecting the environment should be the only duty of the Department of Environmental Protection if its name is not to me meaningless. It is the duty of the State of Pennsylvania under Article I, Section 27 of the Pennsylvania Constitution.

Thank You

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TESTIMONY OF STEPHANIE C. WISSMAN

EXECUTIVE DIRECTOR

ASSOCIATED PETROLEUM INDUSTRIES OF PENNSYLVANIA

DEP PUBLIC HEARING ON ADVANCED NOTICE OF FINAL RULEMAKING

CHAPTER 78 AND 78a

MAY 4, 2015

PENNSYLVANIA COLLEGE OF TECHNOLOGY

WILLIAMSPORT, PA



Associated Petroleum
Industries of Pennsylvania
A Division of API

Good evening. My name is Stephanie Catarino Wissman and I am the Executive Director of the Associated Petroleum Industries of Pennsylvania.

API-PA is a division of the American Petroleum Institute (API), a national trade association that represents all segments of America's technology-driven oil and natural gas industry. Its more than 625 members – including large integrated companies, exploration and production, refining, marketing, pipeline, and marine businesses, and service and supply firms – provide most of the nation's energy and are backed by a growing grassroots movement of over 25 million Americans. The industry also supports 9.8 million U.S. jobs and 8 percent of the U.S. economy, and, since 2000, has invested over \$3 trillion in U.S. capital projects to advance all forms of energy, including alternatives. Many of our members, who own and operate conventional and unconventional wells in Pennsylvania, have a direct interest in this notice of proposed rulemaking.

API is also a standard setting organization. For 90 years, API has led the development of petroleum and petrochemical equipment and operating standards. These standards represent the industry's collective wisdom on everything from drill bits to environmental protection and embrace proven, sound, engineering and operating practices and safe, interchangeable equipment and materials for delivery of this important resource to our nation. API maintains more than 650 standards and recommended practices. Many of these are incorporated into state, federal, and international regulations. API encourages and participates in the development of state regulations that provide environmental safeguards and stewardship, and commends DEP on their regulatory oversight program; however we have concerns with several provisions contained in the draft final rulemaking. As such, we are providing comments on the Advance Notice of Final Rulemaking for 25 PA. Code Chapters 78 and 78a at the three public hearings. My comment tonight applies to Chapter 78a. API-PA has numerous additional comments beyond those presented during these public hearings. They will be presented in writing.

Section 78a.41 Noise mitigation- API-PA has many questions and concerns regarding this section. If this section were to ultimately take effect, questions regarding preemption of local noise control ordinances need to be specifically addressed in the Comment Response Document. As DEP is aware, noise control is already regulated through county and local ordinances. We are unaware of the specific statutory authority upon which DEP relies to trump county or local ordinances, especially in such a subjective manner that singles out one particular industry for noise mitigation oversight. We believe citing the specific statutory authority likewise should be specifically annotated in the Comment Response Document.

DEP has stated publically that this section will not be removed from the regulation, and that it requests recommendations from the public on how to implement it in terms of how to measure noise, length of time impacts can occur, and how to determine background noise quality. In light of those statements and in light of the subjective nature of the draft final regulation, we offer the following recommendations. First, DEP should develop, with the input of stakeholders, a manual of best management practices (BMPs) for noise mitigation and example descriptions of situations under which they could be applied. Second, program Technical Guidance should be developed and vetted through the public comment process to assure that all parties are aware of the nature and intent of DEP in program implementation. Third, DEP should develop and implement an educational outreach program to assist DEP field staff and operators to recognize situations where the BMPs should be applied. And fourth, only after the program is shown to be necessary and effective should it be included in the regulations.

API-PA will be submitting additional questions and concerns regarding this section in our written comments. We believe that DEP reviews both testimony and written public comments in a serious manner; nevertheless, we request that DEP pay particularly close attention to our written comments regarding this section and respond to our concerns with specific detail in the Comment Response Document and we urge DEP to take our concerns into account when finalizing its submission to IRRRC.

Thank you for the opportunity to testify this evening. API-PA and its member companies stand ready to continue to work with DEP on striking a balance between environmental protection and economic development.



Environmental Quality Board Proposed Chapter 78 Regulations

Testimony of John L. Augustine III

Community Outreach Manager for Marcellus Shale Coalition

Williamsport, May 4, 2015

24 Summit Park Drive Pittsburgh

Good evening. I am John Augustine, Community Outreach Manager in eastern Pennsylvania for the Marcellus Shale Coalition, an association working with regional partners since 2008 and currently comprised of nearly 250 exploration and production, midstream, and service companies committed to developing clean-burning natural gas resources. In 2014, our members were responsible for 96% of the natural gas produced here in Pennsylvania.

Responsible shale development has been among the most transformative turning points in our Commonwealth's history. And indeed, natural gas development can serve to enhance and improve our natural resources.

Significant investments have been made across the Commonwealth by our industry to provide needed habitat and restore lands and watersheds. Partnerships with conservation groups are examples of our industry's willingness and commitment to voluntarily protect and preserve our natural resources. In fact, more than 33,000 acres were added to the state forest system thanks to revenues from shale development which assisted in the ability of DCNR to obtain this additional acreage.

And our industry has raised the bar for shale development further with practices designed specifically to lessen the impact on surface disturbance and provide strategies to improve habitat and landscapes.

The benefits do not end there. Take, for example, the fact that the Commonwealth accounted for over 25 percent of the nation's natural gas production in recent months, according to the Energy Information Administration.

This has led to more revenue. The natural gas industry has paid over \$2.4 billion in taxes since 2008 and \$850 million over four years to communities, counties, and the state in impact taxes.

More than 200,000 new hires in Pennsylvania are supported by industries associated with shale development, according to our Labor & Industry. And despite the rhetoric, these are – myself included – lifelong, tax paying residents of this great Commonwealth.

In addition, there is a great cost reduction in residential fuel. My monthly budget for natural gas which I use to cook with, heat my water and most importantly heat my home is \$70 a month. That is a \$1,800 per year savings to senior citizens and those with lower incomes.

Natural gas is a clean burning fuel source, accounting for nearly 25% of our electric generation supply and heating homes of over 5 million Pennsylvanians and ½ of the United States. It has contributed to improved air quality in Pennsylvania. And thanks to natural gas US CO2 emissions are at a 20 year low and the EPA has said that toxic air pollutants across the Mid-Atlantic region are down nearly 14%

These benefits, unfortunately, are at risk. Pennsylvania has a complex regulatory environment and an uncertain fiscal climate. These two issues have made doing business in Pennsylvania very difficult. Pennsylvania already has world class environmental regulations that have been a model for states across the nation. These regulations have been reviewed and praised by the independent STRONGER board, a national non-profit organization dedicated to assessing states' regulations, which referred to last fall as "well-managed, professional and meeting its program objectives." And for that, we applaud both the General Assembly and the Pennsylvania DEP.

With these powerful regulations already in place – and billions paid in taxes – we need to firm up the uncertainty to do business in this great Commonwealth.

At the same time, many of the DEP's proposed regulatory changes to Chapter 78 stretch beyond legislative intent and will undercut the Commonwealth's ability to compete for capital – while providing little or no additional benefit with regard to safe and secure oil & gas development and threaten Pennsylvania jobs and low energy prices.

We are, therefore, very concerned about regulations which seek to hold the natural gas industry to different standards than any other industry; that seek to impose vague and inconsistent standards; which exceed the authority granted to the department by the General Assembly and the courts; and which place Pennsylvania businesses at a competitive disadvantage without a commensurate environmental benefit to our communities or natural resources.

Our over-arching message is straightforward: PA should be a world leader in producing safe and responsible clean energy. So instead of undermining the strong, consistent, and predictable regulatory framework that already exists, we should work cooperatively to revise these proposals to maintain a balance between strong environmental protections and a competitive economic climate. It does not need to be a false choice between the two, and we urge the DEP to continue working with our industry and stakeholders across the Commonwealth on a reasonable, competitive path forward. Please don't set our economy backwards and threaten good paying jobs and affordable energy for all Pennsylvanians.

Thank you for the opportunity to provide this testimony.

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My name is Dan Alters, commenting on my own behalf as a citizen of Lycoming County. I have reviewed the most recent draft of the proposed Chapter 78a regulations and have some comments.

The extensive revisions to Chapter 78a are a tremendous improvement over the existing regulations. Significant to me are the following: the protection of critical public resources that exist near gas well development, the requirement to mitigate noise associated with gas well drilling and production, the more restrictive erosion and sedimentation controls and the inclusion of stormwater management requirements, the tighter restrictions on the use of unpermitted pits and other structures for the storage of regulated substances, the improved provisions for containment systems and practices, and well site restoration requirements that are more specific. I applaud the agency and its staff for considering the many comments previously offered and incorporating many of them into this final draft.

In my review I did find a few things I didn't like so well.

In section 78a.1. the definition of **freshwater impoundment (at (iii))** is a facility that is designed to hold fluids, including surface water, groundwater, and 'other Department approved sources', which makes no sense. This needs to be clarified. The definition of **other critical communities** includes many terms or phrases that are not commonly understood terms, such as 'rare, tentatively undetermined or candidate' species; 'taxa of conservation concern'; and 'significant non-species resources'. These terms or phrases likely reference specific language in other regulations or laws which should be specifically referenced.

DEP makes use of electronic filings for well permit applications, centralized tank storage applications, and notifications of on-site processing, to name a few things. In addition, DEP also utilizes the terms "on forms provided by the Department" without specifying whether paper or electronic submissions are involved. The public must have reasonable access to all of the information submitted by a well operator, whether this information is submitted on paper or electronically. How can the public determine what information is available? How does a person conducting a file review of DEP records determine if all information is made available to them? Does DEP intend to make electronically filed information available electronically? Easy and timely access to information by the public is necessary to ensure agency transparency and operator accountability. All of these concerns should be addressed in a final version of these regulations.

Section 78a.19. specifies fees for permit applications. These fees are far too low to provide for adequate staff to fully review the complex permits involved, and these fees need to be multiplied by three or four times the values currently proposed.

Section 78a.51.(c) requires DEP to investigate complaints of domestic water well contamination by a gas well operator, but gives the agency 10 days to do so. This is far too much time to initiate an investigation, and I recommend that time be shortened to one or two calendar days.

Section 78a.56. authorizes and sets standards for "temporary" pits that may contain regulated substances, including "brines", while 78a.57. prohibits the construction of 'open top' structures and phases out existing ones. Section 78a.57a. provides for "centralized storage facilities" to service multiple well pads. I think these three sections are confusing to operators and the public, and clarification is needed. The oil and gas industry has for far too long enjoyed using substandard facilities to store hazardous materials, and this practice must stop. Storage of all regulated substances should be prohibited in open top structures or pits, and the storage of regulated substances should be limited to enclosed tanks or structures designed and engineered specifically for the storage of regulated substances. These designs need to be subjected to a rigorous review by DEP prior to any written permit issued. The standard for an oil or gas industry storage facility of regulated substances should be no less stringent than one for any other industrial facility in the state of Pennsylvania.

Why is there a section 78a.57"a". when there is no section 79a.57"b"?

Sections 78a.59a and .59b set certain criteria and requirements for freshwater impoundments. Monitoring of all water placed in such a freshwater impoundment must be required to ensure no water tainted with regulated substances is mixed in with fresh water. Perhaps sampling of the contents of a freshwater impoundment should be routinely required of the well operator, with appropriate records kept. If a well operator desires to mix fresh water with flowback or any other polluted water, the storage structure must meet every permitting requirement required of a storage structure for regulated substances.

Section 78a.65.(b) requires site restoration, but in subsection (5) is a sentence requiring a restoration plan to include "the manner in which the disturbed areas will achieve "meadow" in good condition ..." and this makes no sense. Clarification is needed.

Section 78a.74. applies to the venting of gas. As a green-house gas, natural gas should not be vented to the atmosphere without some controls. I recommend it be required to be captured or at the very least burned.

Overall I strongly support more stringent regulation of the oil and gas industry and urge these regulations, strengthened in keeping with the above comments, be adopted as soon as possible. I trust that the current administration will provide DEP with the staff and other resources needed to fully and timely implement these regulations.

Thank you for considering my comments.

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To: Tom Wolf, Governor
DEP Oil and Gas Division, Scott Perry
Acting DEP Secretary, John Quigley
Acting DCNR Secretary, Cindy Dunn

My Name is John Trallo. I am a permanent resident of Sullivan County, PA.

Before I begin, I would like to thank you for holding these hearings and giving the people of Pennsylvania a chance to speak.

I certainly would fully support any measures that can better protect, improve, and mitigate the damage this industry has already caused in areas that have already been drilled, however, I honestly cannot, in good conscience, comment on, or support regulations that will essentially allow the further expansion of this extreme dangerous and destructive practice that will ultimately put other people, and other communities at risk.

By approving, or agreeing to establish more regulations is, in fact, a form of consent to allow more harm to the environment, the ecology, and to the people who live in the "sacrifice zones" of shale extraction. The risks are simply too great, too much damage has already been inflicted on too many people, and I believe it is irresponsible to attempt to regulate any activity when there is no remedy for the most predictable things that can, and do, go wrong.

Many communities, and grassroots organizations are currently working tirelessly to end the practice of extreme fossil fuel extraction in PA, and beyond, and for good reason.

I constantly hear our elected officials and regulatory agencies say that "we must make our decisions based on science". However, they have failed to produce any scientific evidence that suggests this can be done safely, while they continue to ignore the mounting evidence that it can't.

If someone could produce a regulatory model that has successfully worked anywhere, in any state, or in anywhere in the world, perhaps Pennsylvania would be able emulate that model. However, to date, no one has been able to produce that model, and there is no indication that one exists.

We are long past the tired, misleading, and worn out oil and gas industry's talking points and propaganda. We know in Pennsylvania, the DEP has publicly admitted to at least 256 "documented cases" of ground water contamination directly attributed to unconventional shale gas extraction, and there are hundreds more pending. We know that initially 7% of all well casing leak, and that over time, they all will leak. We know that waste disposal is going to be an ongoing problem that there is no environmentally safe solution for.

We know we can't undo the damage and the harm that has already been done, but we also know we can prevent it from continuing.

The gas isn't going anywhere. Therefore, the only prudent and responsible thing to do would be to follow the examples set by Vermont, New York, Maryland, and most recently in parts of Texas and Colorado, and enact a statewide moratorium on all new permits and unconventional drilling operations until independent, comprehensive, environmental and public health studies could be completed, peer reviewed, publicly discussed. Then, and only then, can we decide what regulations, if any, could be established to protect the environment and ensure public safety, and if it can't, then we need to stop this dangerous, volatile, and extreme industrial practice for the sake of our children, and our children's children.

We are human beings, not test subjects.

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Revisions to Proposed changes to Pennsylvania's oil and gas regulations
Key concerns and talking points

In 2014, the Department of Environmental Protection (DEP) issued a revision to their initial proposed changes to the state's oil and gas regulations, known as Chapter 78 of the Pennsylvania Code. Subsequently, the state legislature required DEP to create two sets of regulations, one for conventional operators (Chapter 78) and one for unconventional/Marcellus Shale operators (now called Chapter 78a).

Following consideration of tens of thousands of comments from the public, advocates, issue experts, and industry, DEP released their revised proposals in April 2015.

Continued public participation is essential to making the regulations stronger and more protective of air, water, and health! You have until May 19th to submit written comments. You can also testify at the three public hearings scheduled. You can use the analysis and talking points below (which cover key parts of the revised regulations) to prepare your comments. There are many additional areas (like the section on noise mitigation) that you may also be interested in including in your comments. Information on the complete regulations, hearings, and how to submit comments are at:

http://www.portal.state.pa.us/portal/server.pt/community/public_resources/20303/surface_regulations/1587188

1. Standards for frack pits and impoundments (Sections 78.56, 78.57, 78.58, and 78.59).

Mounting violations and the potential for water and air pollution have already led some companies to transition away from pits and standardize the use of closed loop systems for the storage and treatment of waste. Issues with frack pits have led to contaminated water and resulted in the largest state fines ever against a driller in Pennsylvania, both over \$4 million, to Range Resources and XTO for water contamination due to leaking. DEP should amend the final regulations to:

Prohibit operators from using ANY open-air pits and tanks, regardless of size or location, for storage and treatment of regulated wastes, including wastewater, drill cuttings, and substances (like gels and cement) that return to the surface after fracking. The new revisions prohibit the use of production pits at shale gas well sites, an important change that should be supported. But the use of huge impoundments to service multiple wells would still be allowed. Waste should be stored and treated only in closed, aboveground systems.

Require all waste impoundments to be properly closed immediately upon the effective date of the regulations. The revisions give operators 3 years to either properly close their existing impoundments or bring them under compliance with the construction requirements in residual waste permits. This is an improvement but still puts nearby residents and the environment at risk.

Require that tanks used for the storage of waste be completely enclosed. The revisions give operators the option of using tanks "without lids" to store waste on well sites—making it more likely that polluting spills and emissions will occur.

2. Definition of public resource (Section 78.15, 78.57, 78a.15, 78.57a)

DEP has added schools to the list of public resources that require additional consideration when permitting oil and gas wells and longer setbacks of waste storage from school buildings, parks, and playgrounds. This is a positive step, but is not sufficiently protective. While there is no scientifically established "safe setback" beyond which there aren't health risks from oil and gas development, the distances in the regulations (200 feet and 300 yards) are far too little to offer even limited protection.

To improve protection from pollution, noise, and light and safety from traffic, accidents, and explosions, **DEP should require, at minimum, a one-mile setback** of oil and gas wells, waste storage facilities, and any other infrastructure from the property boundary of any school property. This setback should also be applied to locations where other vulnerable populations reside, including nursing homes, hospitals, day care centers, and communities at a disproportionate risk of health impacts (such as environmental justice areas).

3. Identification of orphaned and abandoned gas and oil wells (Section 78.52a.) Operators of unconventional wells are required to identify the location of old wells before drilling new ones, an important change that should be supported. An estimated 200,000 abandoned wells exist statewide. As drilling spreads and intensifies, so does the chance of accidents, blowouts, and pollution from the intersection of new wells with old ones. DEP should expand these changes and require operators to:

Identify existing wells through onsite inspection before site and well construction and drilling so that the location of a new well can be changed if needed.

Plug and seal or otherwise appropriately address abandoned and orphaned wells according to state safety standards *prior* to new well site construction. The state lacks funding to address the large number of old wells, so drillers should be responsible for preventing water and air pollution when accidents occur.

4. Separation of unconventional and conventional regulations

DEP is required by law to issue two sets of regulations—but that doesn't change the agency's mandate to develop regulations that protect people and the environment. Sometimes the only difference is the scale of operations. Conventional wells also use water and chemicals, create waste, and disturb land. Conventional operators also cause spills, accidents, and contamination. Due to the inherent risks of all oil and gas development, DEP should require *all operators of all wells* to:

End the use of all open-air production pits for the storage of waste and immediate conversion to closed tanks. DEP is proposing to continue to allow conventional operators to store their waste in pits and to bury waste at well sites. Many spills, leaks, and other problems involving conventional pits have occurred statewide. If the waste is potentially toxic and harmful to water, air, soil, and health, the type of well it came from shouldn't determine how it's managed and where it ends up.

Develop water management plans that specify the source and volume of the water used in site construction, drilling, hydraulic fracturing, and site restoration. This would be required for unconventional but not conventional operators. All gas development requires large volumes of water and withdrawals can harm streams, rivers, and aquifers. There is no logical reason to let conventional drillers off the hook for planning and documenting their water use.

Prohibit the road-spreading of brine. DEP would continue to prohibit the use of wastewater (brine) from unconventional wells as a de-icer and dust suppressant, but continue to allow waste from conventional wells to be used for these purposes. Brine contains chemicals, hydrocarbons, and salts regardless of the type of well it comes from. DEP has set limits on contaminant levels in the brine, but has not provided scientific evidence that road-spreading is safe for water, vegetation, and wildlife—especially over large areas for prolonged periods of time.

5. Transparency and access to information

DEP proposes to require oil and gas operators to file permit applications and required reports electronically. This change would improve data, efficiency, and enforcement and should be supported.

DEP should also make sure that all electronic filings and reports made by operators are also available to the public on DEP's website on the same day they are deemed complete by DEP. Easy and timely access to information by the public is necessary to ensure agency transparency and operator accountability.



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Mark L. Cline Sr.
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Bradford, Pa. 16701

My name is Mark Cline, and I am President of the Pennsylvania Independent Petroleum Producers. I am a member of the Conventional Oil and Gas Advisory Committee.

There are important differences between the storage tanks used by small, independent conventional operators and the storage tanks used by large, billion-dollar corporations in unconventional operations. There are four basic types of tanks used in conventional operations: (1) oil storage tanks, which range from 50-210bbls; (2) oil and water separator tanks, which range from 1-20 bbls; (3) water production tanks or brine tanks, which range from 100-210 bbls; (4) gas well condensate tanks which range from 10-100 bbls. The chemistry/salinity of conventional brine is also much different than that of unconventional brine. The Pennsylvania Grade Crude Oil Coalition estimates that there are approximately 175,000 storage tanks in use in conventional operations. When compared to the size of the tanks used in unconventional operations, there simply is no comparison.

The additional restrictions the Department is seeking to impose on storage tanks used in conventional operations are a solution looking for a problem. According to the Department's online compliance reports, the Department conducted 13,445 well inspections in 2014, a 78% increase over 2008, while there was an 83% decline in new drilling. Of those 13,445 inspections, only 8 revealed leaking tanks in use in conventional operations. This represents a mere .00059% of all well inspections

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A 501(c)(6) Organization

conducted in 2014. It also represents just .000045% of the approximately 175,000 tanks in use in the conventional industry. This is hardly justification for tougher regulations governing the use of storage tanks in conventional operations.

In its regulatory analysis form, the Department acknowledges that: "Conventional operators are much smaller in scope and they generate far less waste than unconventional drilling therefore the potential impact to the environment is significantly less." Despite this acknowledgement, the sections 78.57 and 78.57a are virtually identical for conventional and unconventional operators with one exception relating to site security. It is obvious that all the Department did in response to Act 126 of 2014 was cut and paste the language. Clearly, Pennsylvanians who rely on conventional operations to put food on the table deserve more of an effort from the Department.

Make no mistake, application of sections 78.57 and 78.57a as contained in the draft final rule will result in the extinction of small, independent conventional operators in Pennsylvania.

In section 78.57a, the Department seeks to impose a complex and costly set of new rules governing permitting, bonding, insurance, siting, design, performance standards, use of design engineers, and mandatory reporting. The term "centralized tank storage site" is not defined, presumably making it applicable to all storage tank sites, regardless of their size. Clearly, this section was intended for temporary, million gallon brine storage tanks used in unconventional operations and should be removed entirely from Chapter 78.

In section 78.57, the Department requires that all new, refurbished or replaced production fluid tanks meet corrosion control requirements. Aside from the fact that the Department's own data does not demonstrate the need for such a requirement, implementation of this requirement would add an average of \$933 to the price of a storage tank. With an estimated 175,000 storage tanks in use by the conventional industry today, this will add an additional \$163 million dollars in costs to our industry. When you factor in the cost of cathodic protection at \$350 per tank, which comes to \$61.2 million for our industry and monthly inspections at \$30 per tank comes to \$5.2 million annually for the industry. It is not difficult to see how this section could easily cripple our industry.

Under the Regulatory Review Act, the Independent Regulatory Review Commission is required to consider "the impact on the public interest of exempting or setting lesser standards of compliance for individuals or small businesses when it is lawful, desirable and feasible to do so."

At PIPP, we are small business. We are individuals. I urge you to exempt my members from these new rules and preserve our way of life. Thank you.

Thank you for the opportunity to provide comments this evening. My name is Matt Henderson and I am a lifelong resident of Lycoming County. While oil and gas development is not new to the Commonwealth, shale development is new to our part of the state. I can say confidently this development has had an enormous positive impact in our community. We have benefitted locally with the creation and growth of many businesses, numerous jobs, improved infrastructure, increased philanthropic giving and a cleaner environment. Shale development has placed Pennsylvania in the national spotlight and now accounts for 25% of the US gas supply which has helped us reduce our dependency on foreign energy sources. Shale development has led to lower energy prices, down nearly 40%, allowing businesses and homeowners to reinvest the billions of dollars of savings back in their community.

The last 8 years of my professional career have been positively impacted by the natural gas industry - from helping local businesses capitalize on this opportunity by starting and growing businesses, to working for an academic institution focused on community education and outreach, to currently working for a local operator that has invested tens of millions of dollars into this community and looking to invest millions more. And as members of this community - who drink the well water, and breathe the air - no one has a more vested interest in making sure that we protect our environment. My family, and our livelihood, is directly affected by the decisions you make in Harrisburg.

I am concerned that this tremendous opportunity we have been afforded is in jeopardy. The department is proposing a series of requirements that may read well out of a book for those who do not need to live with the consequences of your decisions - but which threaten my livelihood and that of my family. Because of what you are proposing to do, you have my full attention.

You are proposing brand new standards very late in the regulatory process. Despite claiming to be going "above and beyond" with respect to public input, what the department has actually done is effectively sidestep the legal requirements you are supposed to adhere to. For example, this regulation has no compliance cost estimate; it has no cost-benefit analysis; and it fails to consider the impacts to small businesses, as the General Assembly requires. It does not apply environmental standards consistently across industries. You have proposed new standards for noise mitigation, which does not fulfill any of your environmental obligations and instead intrudes on the decision-making of elected officials here in Lycoming County. You have new standards for storage tanks; site remediation; and waste handling and reporting which treat the natural gas industry differently than every other industry in the Commonwealth. Other standards are vague and inconsistent, such as requirements for considering "other critical communities", and make it difficult if not impossible for an operator to know how to comply with the law.

In my various roles of helping to create small businesses; educating the public about shale development; and now working to safely produce Pennsylvania's energy resources, I have seen a commitment to protecting our environment. I believe in high, strong and consistent environmental standards because it's the right thing to do, and because it protects my family. But the department must correct its course here. However well-intentioned some of these provisions may have been, they simply continue to strangle the opportunities available for myself and my neighbors here in Lycoming County.

I was born and raised in Lycoming County and hope to live my whole life here. I want the same opportunities – should they so choose – for my children. Respectfully, you have put that future in danger. On behalf of them, I ask you to re-evaluate these rules and come back with more sensible changes that work for the citizens of this community. Thank you.

Matt Henderson
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