Hoffman, Stephen F. 3042

From:	RegComments@pa.gov
Sent:	Thursday, May 21, 2015 3:55 PM
To:	Environment-Committee@pasenate.com; apankake@pasen.gov; IRRC; RegComments@pa.gov; eregop@pahousegop.com; environmentalcommittee@pahouse.net; gvitali@pahouse.net
Cc:	ra-epmsdevelopment@pa.gov
Subject:	Comment notice for - Advanced Notice of Final Rulemaking - Environmental Protection Performance Standards at Oil and Gas Well Sites (7-484)

Re: Advanced Notice of Final Rulemaking - Environmental Protection Performance Standards at Oil and Gas Well Sites (7-484)

The following comments have been received regarding the above-referenced advanced notice of final rulemaking.

Commentator Information:

Dave Ochs
Kriebel Resources Company (DOchs@kriebelgas.com)
633 Mayfield Rd.
Clarion, PA 16214 US

Comments entered:

Department,

Please find attached my comments to the Chapter 78 – ANFR.

Respectfully,

Dave Ochs
Senior Geologist
Kriebel Resources Company
633 Mayfield Rd. Clarion, PA 16214

These links provide access to the attachments provided as part of this comment. You are advised to save the attachments to your local computer or a network share when prompted by your browser.

Comments Attachment: Ochs Chapter 78 - ANFR 3-18-15.pdf

Please contact me if you have any questions.

Sincerely,
Patrick McDonnell

May 15, 2015

Department of Environmental Protection

Policy Office

400 Market Street

P.O. Box 2063

Harrisburg, PA 17105-2063

Re: 25 Pa. Code Chapters 78 – Advanced Notice of Final Rulemaking (ANFR) – April 4, 2015

Sent via e-mail to RegComments@pa.gov

My name is David Ochs and I am a geologist for a conventional oil and gas production company located in Clarion, Pennsylvania. I have worked in the industry since 1999. I'd like to begin by sharing some statistics on conventional well development within the Commonwealth derived from data obtained from the PA DEP Oil and Gas website. First, from 2008, the year that Marcellus shale development began to take off, to the end of 2015, the number of drilled conventional wells is predicted to decrease by 93% (Figure 01). Secondly, the number of well permit applications is projected to decrease by 92% over the same period of time, indicating that new conventional well development is a shadow of its former self.

The introduction of Act 13 and promulgation of new Chapter 78 regulations are a result of the new challenges associated with the development of the Marcellus shale and other unconventional oil and gas plays. As a result, conventional operators are caught in the middle. Was there a need or was action being taken to revamp Chapter 78 before the Marcellus boom occurred, or was the conventional oil and gas industry adequately regulated prior to the Marcellus? The proposed regulations will translate into additional costs and an increased burden to the oil and gas industry, and will be particularly devastating to the small independent conventional operators. Those increased costs coupled with low commodity prices, has and will continue to result in a loss of thousands of good paying jobs and a decrease in economic development.

PIOGA as well as other trade organizations and individuals have been actively involved in this important rulemaking process since 2012. On a personal level, I've spent countless hours reviewing and commenting on proposed regulations, attending meetings, and participating on committees and boards in order to understand the potential ramifications of proposed regulations in an effort to help ensure the long-term survival of Pennsylvania's conventional oil and gas industry. This necessary, but extremely burdensome process has occurred simultaneously with my full time obligations as a geologist and manager. As a member of the oil and gas community and with much to lose if the industry continues its struggles, I remain committed to doing my part to help achieve and maintain balance between social (government), environmental (natural resources and pollution) and economic growth and stability. I truly hope that we all agree that all three of these items are of equal importance and that achieving balance among them is critical.

On March 14, 2014, a public comment period ended regarding proposed changes to Chapter 78, Subchapter C. Many individuals invested time and resources to provide thoughtful comments only to find that most of them were seemingly rejected as they have not been integrated into the current version of the proposed rulemaking. It would be appreciated if the Environmental Quality Board (EQB) would provide the response document to these comments. We deserve to know why some comments were accepted and others rejected.

Next, I'd like to address the perceived need and the basis for new and additional regulations. The 2012 Oil and Gas Act contains new environmental protections for unconventional wells and directs the EQB to promulgate specific regulations. It's understood that the EQB has the authority to amend the rules for conventional wells, but there hasn't been a detailed explanation of why additional and more stringent regulations are needed to properly regulate conventional oil and gas operations, that for the most part has remained the same for decades. Furthermore, the EQB has indicated that data is not the basis for this regulation. If data and sound scientific evidence are not the basis for regulation, how did the EQB determine that any of the standards are reasonable?

In the summer of 2014, the bifurcation Act 126 was passed requiring that regulations be completely severed into separate chapters, one for conventional and the other for unconventional operations. It is my understanding, and the intent of the legislatures, that for any proposed change to Chapter 78 for conventional operations, the EQB is required to start fresh with:

1) A proposed rulemaking, which was not provided
2) A regulatory analysis, which was not done
3) A public comment period if necessary

None of these steps were followed and Chapter 78 currently remains on the same track as Chapter 78a for unconventional operations.

The Pennsylvania DEP has recently released a picture file to the news media showing photographs of obvious violations and pollution associated with conventional well operations. I acknowledge that conventional oil and gas operations are not environmentally benign and that most of the problems documented should never be allowed to occur and those responsible should be held accountable. Of equal importance, I note with extreme emphasis that <u>every one of the problems and violations portrayed in the photos are adequately addressed in the current law</u>. Additionally, all of these problems have likely been resolved since the pictures were taken, indicating the current regulations are effective and yield favorable results. In my humble opinion, these photos highlight several things:

1) Regulation is necessary
2) Existing regulations and laws adequately address the issues
3) Additional regulations are not needed to fix or eliminate these problems
4) Many of these pictures show problems that had existed for an extended period of time prior to the inspection when the photos were taken; indicating that regulation without adequate enforcement is not effective.
5) The Department's response to these violations is the proposed addition of new and more stringent regulation. The logical answer is to enforce the existing regulations. When traffic speeding becomes a problem, do we first reduce the speed limit making it more stringent? No, we get speeding tickets.

The economic impact associated with the proposed changes to Chapter 78 Subpart C will have a devastating effect on the conventional oil and gas industry and will have a lasting negative effect on the Commonwealth as a whole. The EQB's cost estimate associated with the proposed regulations for conventional operations are drastically understated and differs greatly from the thorough cost analysis done by the Pennsylvania Grade Crude Coalition. Some examples of costly regulations are:

1) Additional and expanded definition of other critical communities.
2) Secondary containment on tanks.
3) Restrictions on pit dimensions.
4) The administrative costs associated with all of the proposed additional requirements such as forms, reports, advanced notification, permits, etc.

Regulation is necessary, but we must strive to maintain the most intelligent and logical rules possible in an effort to achieve that delicate balance between government, natural resources, and economic stability. The following are specific comments on the content of the proposed Chapter 78 regulations that are overly burdensome, costly, and unnecessary.

In the proposed rule, protection of water supplies requires an oil and gas operator to restore impacted drinking water supplies to Safe Drinking Water Act standards or to pre-drill quality, whichever is better. This regulation is unreasonable. Pennsylvania does not have construction standards for drinking water wells and because of this there are many existing drinking water sources in the Commonwealth that do not meet or are incapable of meeting the Safe Drinking Water Act standards. It is unfair to impose upon the oil and gas industry the burden and expense of addressing water contamination that existed prior to and is unrelated to oil and gas operations.

The new definition of "other critical communities" is quite significant and will impact both conventional and unconventional operations. It is too broad and overreaching and would define all non-listed species and non-species resources to levels of protection similar to those for threatened or endangered species without any public input or scientific evidence. These requirements will translate into increased costs to operators and will prevent the optimal development of oil and natural gas resources.

The Department has proposed that all pits must be structurally sound and the interior slopes of a pit with a footprint of 1,000 square feet or more must have a slope no steeper than 2 horizontal to 1 vertical. I appreciate the Department considering a limitation of less than 1,000 square feet, but the reality is that this is simply too small for most conventional oil and gas operations, especially those in the southwest Pa region. Pits built with 2:1 interior slopes will need to be more than 60% larger to contain the same amount of material as a pit built with steeper slopes (Figure 02). Therefore, pad size and area of disturbance will increase proportionately. It's important to recognize that pits associated with conventional operations are open and in use for a relatively short amount of time compared to their unconventional counterparts. One of the undeniable positive aspects associated with conventional operations is their small operational footprint and the short amount of time associated with construction. I propose that pits with a footprint of more than 3,000 square feet and that will remain open and in use for more than 90 calendar days, must have a slope no steeper than 2 horizontal to 1 vertical.

Another significant change to the proposed rule is the "Area of Review", requiring identification of active, inactive and orphaned and abandoned wells located within 1,000 feet of a proposed gas well or located within 500 feet of a proposed oil well that will be stimulated using hydraulic fracturing. Without significant environmental impact, thousands of conventional wells have been hydraulically fractured over the years without Department mandated abandoned well identification procedures. Operators have relied on both private and public databases as well as best management practices to aid in the identification and location of abandoned wells. Has the increase in horizontal drilling led to an increased number of cases of communication with abandoned and orphaned wells? If yes, then this section should only apply to perspective wells with horizontal components, leaving conventional vertical operations exempt. If not, then one may conclude that this rule is unnecessary, without any clear environmental benefit. Has a less costly or less intrusive alternative method for achieving the goal of the regulation been considered? Perhaps this section should be delivered as a guidance document available to operators as opposed to a regulation?

The abandoned well identification process is not black and white. The introduction of a landowner questionnaire will create problems. Many landowners will not answer questions or allow access to their properties, especially if they do not benefit from the prospective well. Keep in mind that large production units common in the unconventional industry are not nearly as common in conventional operations, so the obligations and cooperation from adjacent landowners will likely be problematic. Lastly and perhaps most importantly the Department

generated questionnaire forms have not been made available for review, therefore accurate and complete comments cannot be made until the form is made available.

The proposed requirement for secondary containment capable of preventing tank contents from entering waters of the Commonwealth for all new, refurbished, or replaced aboveground tanks is concerning and will be extremely costly. This one size fits all regulation is excessive when applied to many conventional wells. On one hand, the Department encourages the road spreading of conventional brine, but on the other hand, the Department perceives that the environmental risk is great enough that secondary containment is necessary in all cases of new, refurbished, or replaced tanks associated with conventional wells. This rule should focus on the need for secondary containment on wells whose production includes a liquid hydrocarbon component and/or is located within a certain distance from surface water. Building off of the language already contained in Chapter 78.64 that addresses containment around oil and condensate tanks, if an operator installs a new or replaces an existing tank capable of containing less than 1,320 gallons used for brine production, those tanks, like the ones that contain oil and condensate, should not need secondary containment.

Additional proposed regulation will require oil and gas operators to remediate spills and releases at well sites in accordance with the Act 2 program. In addition to Act 2 provisions, the latest draft regulation has timeframes associated with remediation and reporting, unique to oil and gas operations. Why are the requirements more stringent for the oil and gas industry than they are for other industries? To date, responsible oil and gas operators have dealt with spills and releases in an effective and efficient manner.

The increased cost associated with these proposed changes to Chapter 78, Subchapter C in conjunction with weak commodity prices will result in additional layoffs and will likely force many conventional producers out of business permanently. A Forbes article published March 18, 2015 estimates nearly 75,000 layoffs globally as a result of the downturn in the oil and gas industry (see Figure 03). These figures do not include the numerous jobs lost at small companies such as mine. As of April 2015, Ohio lawmakers stripped a proposed oil and gas tax hike from the state's budget bill, citing that such a tax would be untimely due to the slowdown in the industry. Also announced in April, an Asian partnership selected an undisclosed location in Belmont County, Ohio for a multi-billion dollar ethane cracker. One can only wonder how this may affect Shell's plans for a facility in Monaca, Pa. Clearly Ohio has acknowledged the value of optimal oil and gas development. Not only will the implementation of these proposed regulations accelerate the departure of unconventional operators out of Pennsylvania, the historic Pennsylvania conventional oil and gas industry will be severely crippled beyond its already fragile state. If the proposed regulations are adopted, it is not only the oil and gas industry that will suffer. Residential consumers will be forced to spend more on energy bills, business and industry will become less competitive because of higher prices for energy, making them less competitive, and workers will suffer the loss of good paying jobs. We must strive to achieve balance between appropriate regulation while ensuring the optimal development of oil and gas in the Commonwealth. In its current form, Chapter 78 Subpart C, as defined by the Oil and Gas Act of 1984, adequately regulates the conventional oil and gas industry and does not require wholesale changes and modernization.

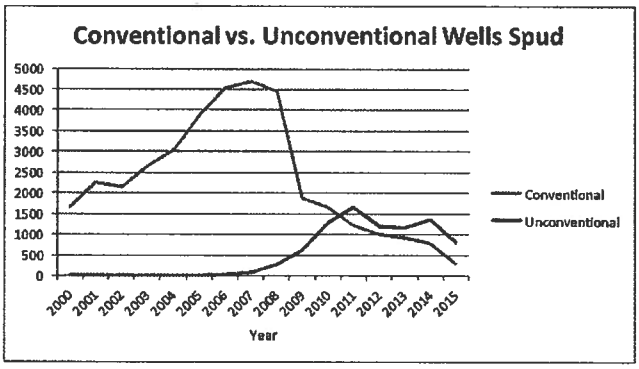
Thank you very much,

David Ochs

Figure 01

Data Source: PA DEP Oil and Gas Website

Year	Wells Spud Conventional	% Change Year on Year	Wells Spud Unconventional	% Change Year on Year
2000	1649		0	
2001	2239	36%	0	
2002	2132	-5%	1	
2003	2648	24%	2	100%
2004	3025	14%	2	0%
2005	3870	28%	5	150%
2006	4518	17%	16	220%
2007	4697	4%	77	381%
2008	4460	-5%	282	268%
2009	1863	-58%	635	125%
2010	1642	-12%	1278	101%
2011	1214	-26%	1658	30%
2012	990	-18%	1198	-28%
2013	928	-6%	1184	-3%
2014	784	-16%	1354	16%
2015	309	-61%	807	-40%



2015 projected using data through April 2015
% change from 2008 to 2015 = -93%

Source: PA DEP Oil and Gas Reports Website

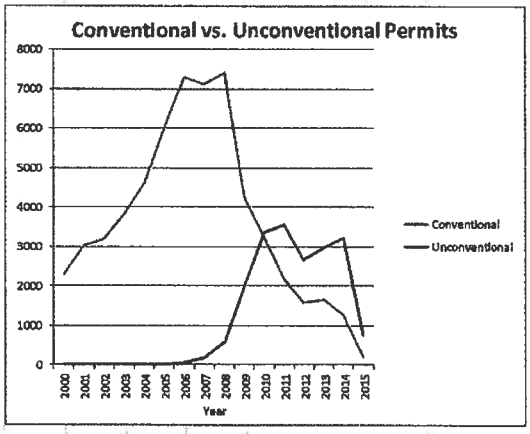
Direct correlation between increase in Unconventional and decrease of Conventional Drilling
Unconventional has outnumbered Conventional drilling in the last 5 years

2011 peak, 137 rigs operating in PA. Now only 51.
Source: Philly.com, January 26, 2015 Quote from David J. Spigelmyer, President of MSC

Data Source: PA DEP Oil and Gas Website

Year	Permits Issued Conventional	% Change Year on Year	Permits Issued Unconventional	% Change Year on Year	Total	% Change Year on Year
2000	2290		0		2290	
2001	3010	31%	1		3011	31%
2002	3191	6%	2	100%	3193	6%
2003	3821	20%	9	350%	3830	20%
2004	4596	20%	6	-33%	4602	20%
2005	6025	31%	19	217%	6044	31%
2006	7287	21%	58	205%	7345	22%
2007	7114	-2%	185	219%	7299	-1%
2008	7398	4%	576	211%	7974	9%
2009	4237	-43%	2004	248%	6241	-22%
2010	3233	-24%	3366	68%	6599	6%
2011	2186	-32%	3559	6%	5745	-13%
2012	1570	-28%	2661	-25%	4231	-26%
2013	1644	5%	2975	12%	4619	9%
2014	1268	-23%	3204	8%	4472	-3%
2015	597	-53%	2241	-30%	2838	-37%

2015 projected using data through April 2015
% change from 2008 to 2015 = -92%



2012 Act 13 Impact fee $200 million a year

2014 DEP raises Unconventional Permit fees

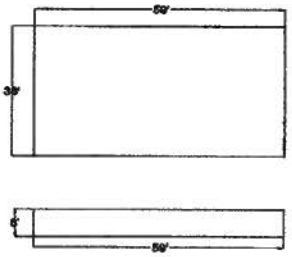
June 13, 2014 TribLive:
"Provides some revenue predictably" DEP spokesperson Ms Morgan Wagner
Oil and Gas Mgmt unit has 202 employees
83 inspectors
119 technical staff
Hire 36 more employees over next two years
$21 million annual budget for DEP's Office of Oil and Gas

Figure 02

78.56(9) Temporary Storage - Addressing Proposed 2:1 Interior Slopes

Pit Configuration with vertical walls
Area = 2,242sq. ft.
Volume = 13,452 cu. ft. (with 2' of freeboard)
Gallons = 100,628

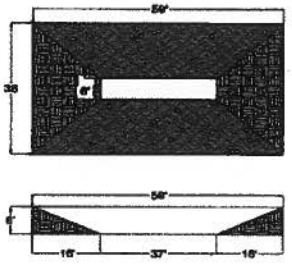
Pit 1



Area stays the same.
Pit volume decreases
by 62.63%

Pit Configuration with 2:1 Interior Slopes (Same Surface Area as Pit 1)
Area - 2,242 sq. ft.
Volume = 8,372 cu. ft. (with 2' of freeboard)
Gallons = 47,666

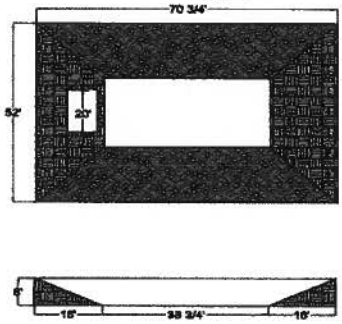
Pit 2



Area increases by 62.35%
to achieve same
volume as Pit 1.

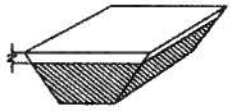
Pit with 2:1 Interior Slopes. Surface Footprint Must Be Increased to Match Volume of Pit 1
Area = 3,640 sq. ft.
Volume = 13,452 cu. ft. (with 2' freeboard)
Gallons = 100,628

Pit 3



Explanation of Freeboard

Pit is designed to hold approximately 100,000 gallons of fluid. Freeboard would be a 2' buffer from the top of the pit. The 100,000 gallons would take up the remaining space within the pit.



78.56(9) Temporary Storage

In order to achieve sufficient capacity, pit surface area will increase by 62.35% if interior slopes are constructed 2 horizontal to 1 vertical, opposed to 1 horizontal to 1 vertical.

To accommodate larger pits, conventional well pads must increase in size. Associated construction costs and environmental costs will increase proportionately.

- Pit 1 - 60' X 100', 20 mil liner @ $1,087.06
- Pit 3 - 80' X 100', 20 mil liner @ $1,816.66
- % cost increase associated with larger liner needed to accomodate 2:1 interior slopes = 67%

Conventional well pits are generally small in size and open for relatively short periods of time and should be exempt from this provision. These pits can be constructed properly without the need of 2:1 interior slopes.

Figure 03

SECTOR	LAYOFFS
Oilfield Services	**58,686**
Acme	99
Advanced Stimulation Techn	69
Alberta Innovates – Technol	28
Archer Ltd.	1,000
Baker Hughes	6,991
Cajun Cutters	2
Caterpillar	200
Civeo	1,000
Dresser-Rand	648
Ensign Energy Services	700
FMC Technologies	2,079
General Electric	500
Halliburton	8,620
Helmerich & Payne	2,130
Hercules Offshore	324
Husky Oil Sands	1,000
Key Energy Service	2,000
Lariat Services Inc.	265
Nabors Industries	3,480
OFS Energy Fund	150
Oil States International	N/A
Oilfield Trucking Solutions	93
Parker Drilling Company	270
Petroleos Mexicanos	10,000
Precision Drilling Corp.	1,000
Sanjel	20
SBM Offshore	600
Schlumberger	9,000
T&B Construction	20
Team Oil Tools	95
Tricon Well Services	125
Trinidad Drilling Ltd.	N/A
Ultra Premium Oilfield Servi	78
Weatherford	8,000

SECTOR	LAYOFFS
E&P	**8,362**
Apache	250
BP	555
Chaparral Energy	121
Chevron	162
ConocoPhillips	230
EOG Resources	150
Laredo Petroleum	75
Marathon Oil	400
Newfield Exploration Co.	200
Nexen Energy (Cnooc)	400
PostRock Energy	14
Quicksilver Resources	60
Range Resources	60
Sasol	1,600
Shell	600
Suncor Energy	1,000
Talisman-Sinopec	300
Talisman Energy	200
Total	2,000
WPX Energy	80
Yates Petroleum	15

SECTOR	LAYOFFS
Manufacturing	**7,171**
Atlas Tube Inc.	35
Doepker Industries	58
ERVAZ	200
PTC Seamless Tube Corp.	71
TimkenSteel	52
TMK IPSCO	248
US Steel	3,827
WireCo World Group	30
Vallourec Star	1,400
Enable Midstream	200
Enbridge	100
MRC Global	270
Tenaris	680
TOTAL LAYOFFS	**74,119**

Quote from article:

Considering that about 600,000 work in the U.S. oil and gas sector, this is a big hit.

And it's important to note that most of these are solid middle class jobs.

There's not many industries where a guy with little more than a high school education can make $100,000 a year, but that's a common pay package for drilling rig workers.

I'm told by people who operate a lot of drilling rigs that for every rig mothballed about 40 people lose their jobs. The U.S. rig count is down by more than 700 from this time last year.

Some of these laid off workers could find a new future in Saudi Arabia, where Aramco is reportedly wooing shale workers to "join our team."

http://www.forbes.com/sites/christopherhelman/2015/03/16/oil-layoffs-tallied-75000-and-counting/