4/21/16 Public Meeting Remarks

3042

Kathy Cooper

From: Mark Cline <mark.cline@aol.com>
Sent: Sunday, April 17, 2016 3:29 PM
To: IRRC
Subject: April 21 meeting on Chapter 78& 78a
Attachments: PIPP Affidavit executed 3-24-16 (1).pdf; IRRC Mark Cline Sr..docx; IRRC Testimony of Mark Cline Jr. April 21, 2016.docx

The PIPP affidavit will be used by PGCC. My testimony and my sons are included. Thank you for the opportunity to testify. This is very important to us.

Mark Cline
Cline Oil, Inc.
mark.cline@aol.com

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA :

COUNTY OF Mckean : ss

:

Mark Cline, President since October 1, 2014 and before that a member of the Board of Directors of the Pennsylvania Independent Petroleum Producers (PIPP), a trade group representing small oil and gas operators and businesses involved in or directly affected by Pennsylvania's conventional oil and gas industry, being duly sworn, deposes and says that:

1. As President and former Board Member of PIPP he is familiar with all correspondence sent and received by PIPP as well as all meetings conducted by PIPP;
2. In the course of formulating its final form rules relative to Chapter 78 (C) the Department of Environmental Protection (Department) did not reach out to PIPP to discuss costs of the final form rules, to ascertain actual costs of procedures and practices currently engaged in by PIPP members concerning conventional oil and gas operations, or to discuss potential alternatives for small businesses relative to the final form rules.
3. On March 5, 2015 PIPP submitted a 45 page document to the Environmental Quality Board (EQB)relative to proposed revisions to Chapter 78 (C), which showed PIPP's estimated costs of the new regulations. We showed the affects the cost would have on a small family run oil company, and how they would not be able to comply with the new regulations. Neither the EQB nor the Department thereafter consulted with PIPP concerning any matter contained in our document, yet financial estimates provided by the Department to the IRRC as contained in the 192 page Regulatory Analysis Form are inconsistent with financial information provided by PIPP.

Pennsylvania Independent Petroleum Producers

Mark Cline

Mark Cline, President

Sworn to and subscribed
before me, a Notary Public,
this 24th day of Mch.
2016.

Joyce A Cline
Notary Public

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Joyce A. Cline, Notary Public
City of Bradford, McKean County
My Commission Expires Oct. 28, 2019
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Independent Regulatory Review Commission

April 21, 2016

Chairman and Committee members:

My name is Mark Cline Sr. I am President of PIPP, a member of PGCC and a member of COGAC. Today I am going to talk about how Act 2 clean ups do not work in our Industry for crude oil.

Federal Regulations specifically exempt crude oil and its associated materials as not "hazardous wastes". This means they are worst case, defined as Residual Waste and hence are not required to have laboratory analysis or manifesting.

Federal Register 40 CFR 261.4 B5 on Page 42 states section (b) Solid wastes which are not hazardous waste. Drilling fluids, produced waters, and other waste associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

Act 2 clean ups were designed to clean up large hazardous waste sites, not crude oil. Now I am going to show you how much environmental damage an Act 2 clean up does in our industry.

Pictures 1-4: Shows the tank battery and how the company had to dig up most of the secondary containment and haul away.

Picture 5: Shows the ditch beside the road leading to a culvert that runs under the road.

Pictures 6&7: Show the little creek that the company was allowed to flush with water, as we have always done. The water pushes the oil to an underflow dam where the oil is cleaned of the top.

Pictures 8-15: all the damage done by digging up the creek, and damage to surrounding areas from trying to get equipment near the creek to do the work.

The cleanup of this spill did so much environmental damage that it is easy to see that an Act 2 cleanup does not work in our industry. This is just one example. Every time the DEP has made some one use it there have been the same results.

This spill cost this company:

1) $18,568 for consulting and lab work (which was done after the dirt was dug up and in the roll offs)
2) $23,713 to put dirt in the landfill (which was a total waste of valuable space)
3) $8,840 for use of Vac truck
4) $71,240 for roll off rentals, trucking and an excavator
5) They spent $155,000 without including the cost of labor for their own workers or equipment.
6) It took 1,436.5 man hours for this clean up.
7) The company hauled away 600.63 tons of dirt. (Which is 32 tractor trailer loads).

An Act 2 cleanup would put most small companies out of business.

Independent Regulatory Review Commission

April 21, 2016

Chairman and Committee members,

Thank you for the opportunity to testify today. My name is Mark Cline Jr. I am a member of PIPP and a 5th generation oilman. I am here today to try and save my job. I am going to talk about how an Act 2 cleanup has no place in our industry. Act 2 clean ups were designed for large hazardous waste sites. Let me repeat that. Act 2 clean ups were designed for large hazardous waste sites. Our production water is listed as a residual waste. According to the Departments 2015 Productions and Waste reports, 129,457 Barrels of production water were used for road spreading. This is a Dep approved process. A 2014 report from Penn Dot shows they used 1.2 million tons of salt on our highways. If we spill 5 gallons of our production water we have to report it, clean it up, and with these proposed regulations we will have to do Act 2 clean ups. How can the DEP justify us doing this when they let us road spread production water and have done studies to prove that it is safe. The Department has not shown any data that proves the way we cleaned up spills before, was not working.

Here are some more interesting facts that show why Act 2 clean ups should not be applied to our industry. Our production water weighs about 9 pounds per gallon, so 5 gallons weigh about 45 pounds which would be our reportable quantity. As I have already stated it is a residual waste.

The EPA list for Hazardous Materials is found at 49 CFR 172.101 Appendix A. On that list there are 717 hazardous materials that have a higher reportable quantity than our production water. Here are two examples:

1) Sulphuric Acid (Battery Acid)---Reportable Quantity 500 pds
   a) North American Emergency Guide Book--- Guide #137 says about health: Toxic, inhalation, ingestion or contact with skin or eyes with vapor, dust or substance may cause severe injury, burns or death.
   b) For a small spill isolate in all directions 200 feet. Keep people downwind during the day at least 0.01 miles and at night 0.05 miles
   c) For cleanup wear Self Contained Breathing Apparatus.

2) Nitric Acid--- RQ 1,000 pds
   a) North American Emergency Guide Book---Guide #157 says about health: Toxic, inhalation, ingestion or contact with skin or eyes with vapors, dust or substance may cause severe injury, burns or death.
   b) For a small spill isolate in all directions for 200 feet. Keep people downwind during the day for at least 0.01 miles and at night 0.05 miles.
   c) For Cleanup wear Self Contain Breathing Apparatus.

These facts come from a Material Safety Data Sheet for our production water.

Section 2: Hazard Identification

This material is not considered hazardous according to OSHA criteria.

Section 3 Composition

Water 90%

Sodium Chloride (salt) 10%

Section 4: First Aid Measures

Skin Contact: First aid is not normally required

Inhalation: First aid is not normally required

Ingestion: First aid is not normally required

As I have shown our production water is harmless. The Dep lets us spread it on roads. Penn Dot spreads over a million tons of salt every winter. Why should we have to dig up an accidental spill and spend thousands of dollars on soil testing and hauling the material to a land fill? This regulation alone will put producers out of business with just one spill and will cause more environmental damage digging up the soil and filling up landfills. Please do not approve these regulations. Thank you.

Good morning,

I am David Clark; this is my son Solomon Clark. We are second and third generation members of Clark Oil Company a conventional oil and gas company in northwest PA. Our company was started by my father, over 50 years ago, and my father was president of POGAM, the predecessor to PIOGA, when the first full set of oil and gas regulations was passed over 30 years ago. The DER secretary contacted my father and it was always a source of pride that our father collaborated with the DER and legislators in building a successful Oil and Gas Act and regulatory framework. So for today's discussion it is important we begin with the understanding the conventional oil and gas industry has been successfully regulated for over 32 years.

In recent years Pennsylvania has undergone a change my father and the old DER never foresaw, namely, the unconventional shale development. This picture clearly illustrates the great differences between our two industries. Please note the size of the unconventional pad and then look to your lower right at the house. The house is the same size as the conventional well in the picture below. Beyond pad size the unconventional industry involves large quantities of water, high well pressures, dozens of truck trips, huge volumes of sand, and countless other factors not involved in the conventional industry.

The response to the unconventional industry was to enact new regulations. Unfortunately, the DEP swept the two industries into the same regulatory package. Act 126 shows you that this sweep was not the intent of the legislature. The DEP has responded to Act 126 by creating chapters 78 and 78a; but in reality, the DEP has never done a separate analysis of why the existing regulations for conventional oil and gas should undergo this enormous overhaul.

(second slide)
We think the overhaul is far out line with the conventional industry. The small footprint of our industry does not justify the massive amount of new paperwork and costs required under these regulations. And these regulations do not account for the fact that nearly every conventional operator is a small business. We are multi-generational companies and we live in the same communities where we do business. Our family has operated in Warren County for 50 years. We cannot be anything less than a good steward of our neighbor's right to clean air and water if we expect to continue to acquire leases and shop in our local stores.

My third slide further illustrates the point that the existing regulations are working successfully for conventional oil and gas. This map comes from the DEP's website; the blue areas are conventional wells and there are more than 12,000 operating conventional wells in the Allegheny National Forest, of which my family proudly owns several hundred. Two recent independent studies have been conducted on the waters of the Allegheny National Forest and the results show those waters are among the cleanest in our state.

I hope our company will someday be operated by my son Solomon and my nephew Eric. However, the DEP has not properly analyzed the need for, or the costs of, the regulations before you, and these regulations will bring unnecessary paperwork, notices and costs…all of which will have a devastating impact on the conventional industry. In order for there to be a business to pass on to Eric and Solomon there has to be a regulatory environment that is balanced. I trust you are the keepers of that balance, and for that reason I ask you to disapprove these regulations.

Dave Clark
Clark Oil Company

Testimony of Arthur Stewart, PGCC Secretary

I am Arthur Stewart, secretary of Pennsylvania Grade Crude Oil Coalition, one of three trade groups representing Pennsylvania's conventional oil and gas industry. PGCC has found it impossible to learn the need for revisions to the conventional regulations. Before the regulations were published in 2013 PGCC joined with the other 2 industry trade groups to submit to DEP a Right to Know Request for these items. (cite bullets slide 1)

DEP responded that no such records had been compiled for the Chapter 78 revision process and it would take too many resources and too much time to search the hard copy files in every field office to produce them to the trade organizations. At DEP's request PGCC withdrew its request.

The next month the DEP published the proposed regulations and the first RAF. As to data relied upon, that first RAF states "none." As to need for new regulations the RAF cited the new unconventional gas industry.

(Slide 2) In April, 2014 the IRRC issued comments. As to need you noted that the RAF referred to unconventional wells. But as to conventional wells you asked for a "detailed explanation" from the EQB. PGCC attempted dialogue with DEP and in early 2014 we met with the DEP secretary to request a meeting and sent a letter expressing a desire to "discuss the matter or provide additional information." On April 28 the DEP Secretary sent a letter expressing his encouragement for a meeting. However, there was no meeting. In August 2014, PGCC sent another letter to the DEP. In September 2014, Deputy Secretary, Scott Perry, sent a letter stating that "DEP will be reaching out to PGCC and other interested parties." However, there was no meeting.

Finally, in fall 2015 PGCC members submitted about 130 Right to Know requests to DEP, asking about the need for each new regulatory section, estimates of costs for each section, etc. The DEP provided the RAF we already had. (BOX)

(slide 3) We have suffered the same frustration with the analysis of costs required under the RRA. Here is what the DEP's 2016 revised RAF said. "The Department reached out to well operators, subcontractors, and industry groups to derive the cost estimates of this final-form rulemaking." I assure you—PGCC was never "reached out to" regarding the costs in the final RAF or any RAF. Below are affidavits that each of the three industry groups have provided you. The DEP statement about "reaching out" is in direct conflict with my experience as a PGCC officer and with the affidavits.

PGCC's Board was highly upset with this RAF statement because it is not true and because DEP ignored our pleas for a meeting. (slide 4) Therefore, on January 28, 2016 we submitted a Right to Know request to DEP asking for all records relating to the alleged "reaching out", including meeting notices, agendas, meeting minutes and records of actual costs reviewed by the DEP. On April 5, 2016 we received a response from DEP admitting there are no meeting notices, no agendas, no minutes of any meetings, and no records of actual costs examined by the DEP. The DEP did provide 3 emails and a memo, all of which I provided to you earlier this month. The DEP withheld 5 pages of handwritten notes and 148 pages of emails and records exchanged between staff.

I hope the Regulatory Review Act has meaning and that there is a consequence for such bold violations of its requirements relative to need and costs. I hope that consequence is the disapproval of these revisions to the regulations now in place. Thank you.

Good morning commissioners. My name is Joe Thompson. I am a third generation producer of conventional oil and natural gas employed by Devonian Resources, Inc. near Pleasantville, PA. I am Vice President of Drilling and Operations, my father is the corporation President, and my 93 year-old grandfather is Chairman of the Board. My grandfather started this business in 1947 and we have persevered through the many booms and busts the industry has undergone in that time. We are the quintessential conventional producer in Pennsylvania; a multi-generational small business. We rely upon and serve small businesses in ours and surrounding communities. We support our local Chamber of Commerce, community arts and educational outreach programs for young people and adults, little league baseball and soccer teams, our local 4H chapter and volunteer fire department. We take great pride in helping to make the small community we live in as vibrant, and relevant as possible.

But times are tough in the conventional oil and gas patch, Commissioners. In December of 2014, Devonian Resources had 24 full-time employees on its' payroll. As I stand before you today we employ 4 full-time and two part-time workers. Hourly and salary paycuts have been implemented for those who we have been able to maintain. We have had to inject personal finances into our business to help cover the costs of our operations. Even with these drastic cuts we are just barely able to get by.

(Place exhibit on easel.)

According to the Regulatory Review Act Sections 5(a)(12.1) and 5.2(b)(8) the DEP was required to make the following considerations with regard to small businesses.

1. Less stringent compliance or reporting requirements
2. Less stringent schedules or deadlines for compliance or reporting requirements
3. Consolidation or simplification of compliance or reporting requirements
4. Establishment of performance standards to replace design or operational standards
5. And, finally, and perhaps most importantly, the exemption of small businesses from all or any part of the requirements contained in the rule.

In this photo you see one of Devonian Resources' conventional oil wells. This well is typical like thousands of wells in our region. Listed below you will read the names of the businesses, all of them small businesses, crucial to the life and existence of this single well.

(read off a few of the vendors.)

Each of these businesses have suffered layoffs, pay cuts and some are no longer in existence, like Fairmont Supply in Warren, PA.

Now, here are the alternatives and exemptions considered by DEP for this regulatory package

(Turn Exhibit over....)

As you can see, the regulations do not contain any alternatives or exemptions for small business. I want to suggest why the regulation has no alternatives.

(Write the words: "Need")

The DEP has never said what parts of the current regulations aren't working and why revisions are necessary.

Failure of DEP regarding Small Business Duties

Regulatory Review Act Sections 5(a)(12.1) and 5.2(b)(8)

1) less stringent compliance or reporting requirements;
2) less stringent schedules or deadlines for compliance or reporting requirements;
3) consolidation or simplification of compliance or reporting requirements;
4) establishment of performance standards to replace design or operational standards; and
5) the exemption of small businesses from all or any part of the requirements contained in the rule.

Vendors crucial to the life of this single well:

Location Survey and E&S Plan by Fox & Fox Commercial Surveying- Clarion, PA
Location Construction and E&S Implementation by Passeaur Excavating-West Hickory, PA
Surface Casing Cemented by R&R Ventures-Pleasantville, PA
Gamma Ray Log by Penn Gold Wireline-Bradford, PA
Correlation Log by Keystone Wireline-Bradford, PA
Open-Hole Air Notch by Baker's Air Notching-Pleasantville, PA
Open-Hole Frac pumped by Reliance Well Services-Erie, PA
Conductor and casing- Purchased from Fairmont Supply Warren,PA
Tubing, rods, and pump jack- Bradford Pipe and Supply Bradford, PA
Surface and Downhole pump equipment and Assembly- Hoover Supply Warren, PA
Electrical wire and panel set ups by Hull Electric-Warren, PA
Electric Motor and Belts-Charles Tool Shippenville, PA
Flow Line Fittings-Interstate Pipe and Supply Titusville, PA
Oil & Gas Gathering Lines-Oil Creek Plastics Titusville, PA

#3042
represents BIOEA
Court case

Statement to the Independent Regulatory Review Commission, April 21, 2016

The Failure of Consensus

I am Jean Mosites, an attorney with the law firm of Babst Calland Clements & Zomnir, P.C. in Pittsburgh, PA. I appreciate the opportunity to speak to the Commission regarding this final form rule. I practice environmental law and have provided advice to oil and gas clients on regulatory matters throughout the course of this rulemaking.

As highlighted by the Commission in its April 2014 comment on the proposed rule, the legislative purposes of the Regulatory Review Act include the following:

> "To the greatest extent possible, this act is intended to encourage the resolution of objections to a regulation and the reaching of a consensus among the commission, the standing committees, interested parties and the agency."

I am among those who have devoted substantial time and efforts to engage in detailed dialog with the Department of Environmental Protection regarding this rule, as applied to both conventional and unconventional oil and gas industries, in the hope that consensus could be reached, a consensus to create a regulatory framework that closely tailors obligations to clearly defined purposes and well justified and compelling need.

I am among those who are disappointed that the conversation necessary to the development of such consensus has not taken place, and frustrated by the many lost opportunities for such conversations over the past four years.

- We were disappointed with the **submission of the proposed rule to the Environmental Quality Board in the summer of 2013**, which ignored TAB's letters to DEP in May and July of 2013 stating that central portions of the rule were not ready for publication and should await the outcome of the TAB working groups that had been created to address these key issues. DEP's submission to EQB in August 2013 made the four TAB working groups meaningless and sent a strong message to the industry participants and TAB itself that the Department did not need or desire consensus with industry.
- We were disappointed with **EQB's approval of the proposed rule, which was accompanied by a Regulatory Analysis Form** that was severely lacking in the necessary statements of need, economic and fiscal impacts, small business analysis, and copies of forms that would be required to implement the rule.
- We were disappointed that **DEP and EQB ignored Act 126 of 2014**, which was clearly intended to halt the rulemaking with respect to the conventional industry, allowing the existing regulatory framework to remain in place unless and until revisions were fully justified by analysis of that industry.
- We were disappointed **that DEP published an ANFR that circumvented the regulatory process**, failing to provide revised analysis to explain how DEP had

responded to the voluminous and detailed comments that PGCC and its members had submitted to DEP/EQB, or why the revisions in the ANFR were necessary and justified by a compelling need that outweighed the likely impact on the conventional oil and gas industry.

- We were disappointed that DEP waited until January 2016 to provide a comment /response document for the public comment period that had taken place in March of 2014, and that its **revised Regulatory Analysis Form** did not articulate a compelling need to revise the rules for the conventional industry, did not conduct a small business analysis or provide a single exemption for small businesses from Chapter 78, a chapter supposedly developed just for the conventional industry.
- We were disappointed that over a dozen practical **amendments to the final form rule**, as proposed by EQB members, were rejected by DEP and ultimately failed before the EQB, even where DEP's response stated that the amendment would clarify the rule but such clarity was unnecessary because DEP would implement the rules in a manner other than the language indicated.

These are the some of the many lost opportunities where DEP and EQB could have undertaken sincere efforts to reach consensus on this final form rule, each of which indicates a rulemaking effort by an agency driven by schedule rather than substance.

DEP might respond that consensus was not possible because comments received were on a wide spectrum from those who would ban the industry to those who would reject all regulation. This is no answer – consensus should have and could have been sought and obtained from the reasonable center

I appreciated the Commission's April 2014 comments, asking DEP and EQB to provide information that was clearly lacking in the regulatory analysis of the proposed rule, information that would have facilitated consensus. The Commission's comment regularly encouraged DEP to meet its obligations under the RRA, to obtain necessary information, and to undertake efforts for the development a balanced regulatory framework that makes sense for this industry and the Commonwealth, its environment and its citizens.

The RRA, however, required that on <u>the same date</u> the proposed regulations were sent for publication the agency provide many items not provided in this matter. The missing items included forms, the financial analysis of the majority of the proposed regulatory sections, underlying data and the other items. PGCC and PIOGA submitted Right to Know requests that establish that the required documents, data, and analyses did not exist on the date the proposed regulations were submitted to the Commission..

These procedural failures make it impossible for the Commission to carry its obligations under the RRA. It is impossible to evaluate the balance intended by the legislature or to measure the viability of alternatives for small business, when the required data, needs, and other elements are

absent. Even if these items were now belatedly provided, it is too late to analyze, meaningfully comment, or achieve consensus.

DEP and EQB have failed to meet their obligations under the RRA, and the final form rule should be disapproved because it does not reflect either consensus or balance, is not justified by a compelling public need and will do far more harm than good.

Thank you.

Jean M. Mosites

Babst Calland Clements & Zomnir
Two Gateway Center
Sixth Floor
Pittsburgh, PA 15222
412-394-6468

Testimony to the IRRC

April 21, 2016

Tyler and Katie Martin; Cameron Energy Company and Caledonia Land Company

My name is Tyler Martin. I am a member of the workgroup convened by the DEP to write guidance instructions for the Area of Review regulations. One of the most serious problems with this new regulation is that the areas required to be reviewed are too large. For conventional oil wells the area of review is a 500 foot radius which is the black and green area on this map. That is 18 acres. For conventional gas wells the area of review is a 1000 foot radius which is all the colors on this map. That area is 72 acres.

On the workgroup we were not allowed to talk about the distances used by the DEP in the regulations. Even though we have geologists on the workgroup, anytime we commented that the data doesn't support the DEP's distances the DEP ruled us out of order. However, you have been provided data from the conventional industry that the proper radius for a conventional oil well is only 250 feet which is the black area on this map. That is 4.6 acres. The proper radius for a conventional gas well is 500 feet which is the black and green area on this map. That is 18 acres. Thus for conventional oil wells the excess acreage under the regulation is 13.4 acres (18 minus 4.6); for conventional gas wells the excess acreage is 54 acres (72 minus 18).

To help show the context of the excess acreage, these circles are superimposed over Heinz Field in Pittsburgh. You can see that the excess 54 acres covers an entire museum, part of an interstate, and space to park thousands of cars. The excess acreage imposes an enormous cost because for each acre the regulation requires the ground to be inspected for evidence of old wells, found wells have to be inspected and mapped, records and old maps have to be reviewed, and a questionnaire has to be sent to every owner of every surface parcel inside the circle.

The excess acreage compounds other serious problems with the regulation. The regulation is silent as to how we gain access to properties not under lease. Because the DEP circles are so unnecessarily large we will be required to gain access to many acres where if we don't get permission we will be trespassers. My wife, Katie, is the secretary for a small oil and gas company.

Katie: The questionnaires have to go to every surface owner. If every person in this 72 acres had a normal 50 by 100 foot lot there would be 600 surface owners. Every questionnaire has to be sent by certified mail. And I would have to do the work at the courthouse to determine who the owners are. My employer has to pay for my time and the certified mail. The DEP cost estimate doesn't begin to address these costs.

Tyler: This is list of AOR compliance costs that I assembled. I did this on my own because on the DEP workgroup we were not allowed to talk about costs as one of the factors. As you can see, the total per well is $2765. The DEP only estimates a cost of $450 per well. And all these asterisks list assumptions or ambiguities that could increase the costs.

I also put together this list of ambiguities. I looked through the various comments submitted to you to arrive at this list. (read first 3 or 4)

Ambiguities under Area of Review Regulations:

- Consequence if the research reveals paper records of a well that cannot be located in the field.
- If multiple surface owners (jointly owned property) must questionnaire be sent to all joint owners.
- What level of title examination is required to ascertain surface ownership
- Do the plats which must be prepared under the regulation require engineer's stamp.
- Consequences if surface owner refuses to cooperate in the questionnaire.
- Consequences if the research fails to identify a well subsequently found in the field.
- What does regulation mean when it requires one to "visually monitor" adjacent wells.
- What is the scope of "historical sources" and "other available well databases".
- How to comply with the field requirements (inspection, ascertainment of well integrity and visual monitoring) when well is on adjoining property and access is denied or owner cannot be contacted.
- How to identify bottom hole location and true vertical depth of abandoned, orphaned and plugged wells (for example: require entry to plugged well?).
- What level of GPS accuracy required (survey quality or lesser).

Because the Area of Review regulation has these ambiguities and because the DEP hasn't adequately analyzed the many paperwork and administrative costs of this new regulation, I ask you to vote to disapprove the regulation.

Testimony for the IRRC
Harrisburg, PA
April 21, 2016

Testimony - Proposed AOR Distances for Conventional O & G Wells

Good morning. My name is Raymond Follador. I am a petroleum geologist with 35+ years of experience in the O & G industry and currently president of ARK Resources, Inc., an independent producer of natural gas in southwestern Pennsylvania. I received my B.S. in Earth Science from the Pennsylvania State University (1979) and my M. S. in Geology from the University of West Virginia (1993). I am a certified geologist with the American Association of Petroleum Geologists and the American Association of Professional Geologists. I am also a licensed geologist in the Commonwealth of Pennsylvania and a long time board member and current president of the Pittsburgh Geological Society.

Today I am here to request that the proposed regulations to enact an Area of Review (AOR) of 500 feet for conventional (vertical) oil wells, and 1,000 feet for conventional (vertical) gas wells be disapproved because producer/operators, as a matter of good business practices, already perform an AOR prior to the drilling of a well to protect their investment as well as the environment and because the AOR distances chosen by the DEP are not supported by data or experience.

Hydrofracture propagation, or fracing, is a procedure used to enhance the production from a petroleum reservoir and has a large data base of tens of thousands of wells in Pennsylvania. Facture propagation and rock mechanic studies performed by Roger Willis and Jim Fontaine of Universal Well Services on Upper Devonian conventional oil and gas reservoirs in Pennsylvania are unanimously accepted by the industry and document that hydraulic fractures propagate perpendicular to the least principle stress. In western Pennsylvania reservoirs that are greater than 2,000 feet in depth, hydrofractures propagate vertically in the SW-NE direction of the well bore along an azimuth of approximately N-50 deg-E with half lengths of less than 500 feet. Thus, producers intuitively space their wells at a distance that is generally greater than two times the expected fracture length to avoid communication with surrounding wells.

In Example 1 before you is a is a map view of a shallow oil field in Warren County where spacing averages 400 feet between wells. The producer/operator has had no incidents of communication in this field which indicates that communication concerns are less than 200 linear feet.

In Example 2 is a map view of a natural gas field in Armstrong County where spacing averages 900 feet between wells. The producer/operator has had no incidents of communication in this field which indicates that communication concerns are less than 450 linear feet.

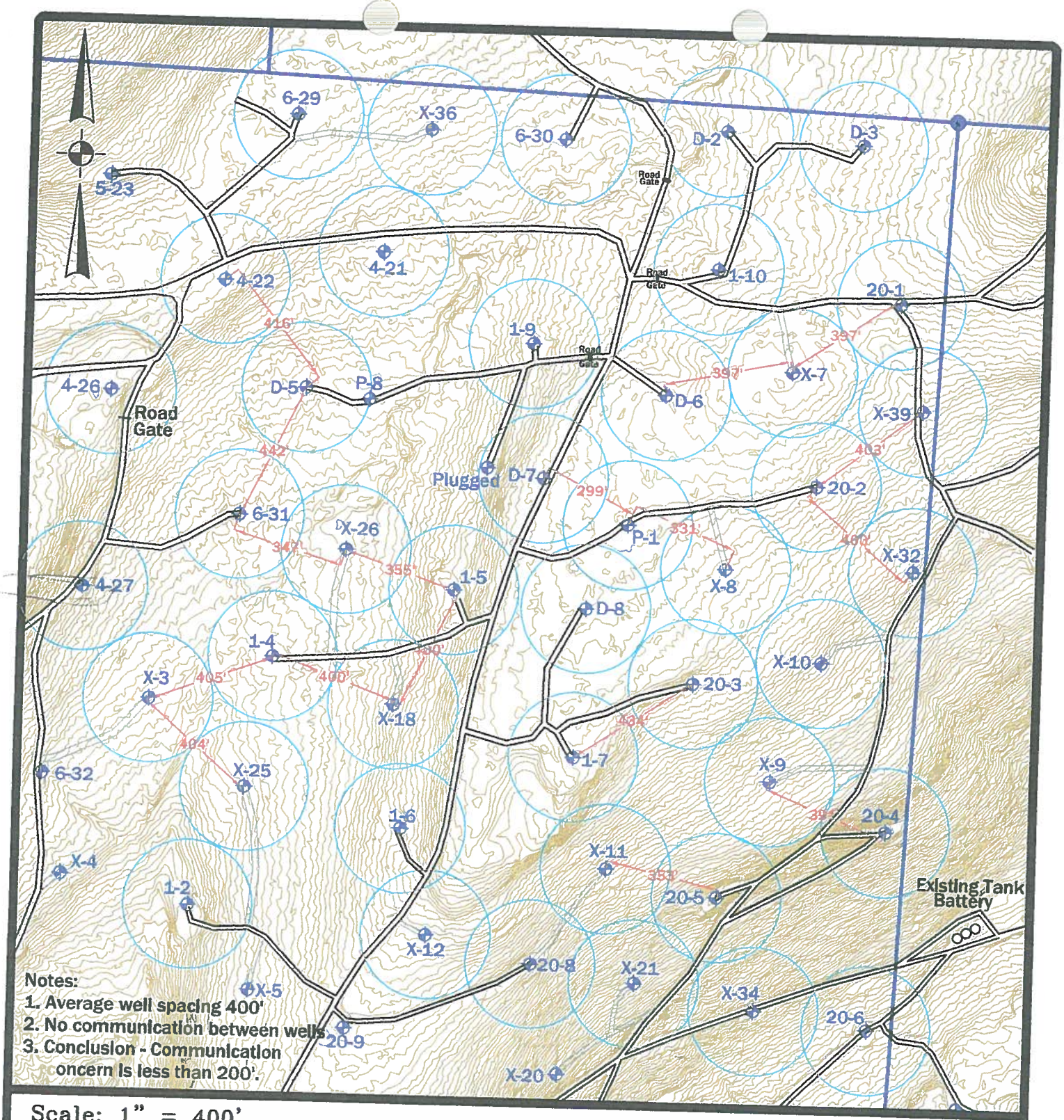
However, the distances required by the DEP in the new regulation are twice these amounts. There is no data which supports the DEP's distances. In fact, in the Regulatory Analysis Form the DEP provides two case studies, both presenting communication distances of less than 170 feet. I have also reviewed a DEP power point presentation that discusses AOR distances; however, the data in this presentation does not support the excessive distances contained in the new regulation. On the other hand, the distances I have shown you on these two maps are typical of thousands of wells in Pennsylvania and provide much more sound data than what has been provided by the DEP.

In conclusion, the proposed AOR distances of 500 feet for conventional oil wells and 1,000 feet for conventional gas wells are not supported by scientific data. Such scientific data better supports distances of 250 feet and 500 feet. For this reason I respectfully ask you to disapprove the proposed regulation.

I would like to thank the IRRC for allowing me to present this opinion for all conventional oil and gas producers.

Respectfully Submitted,

Raymond M. Follador
PG-632G



Notes:
1. Average well spacing 400'
2. No communication between wells
3. Conclusion - Communication concern is less than 200'.

Scale: 1" = 400'

Date: 03/07/2016

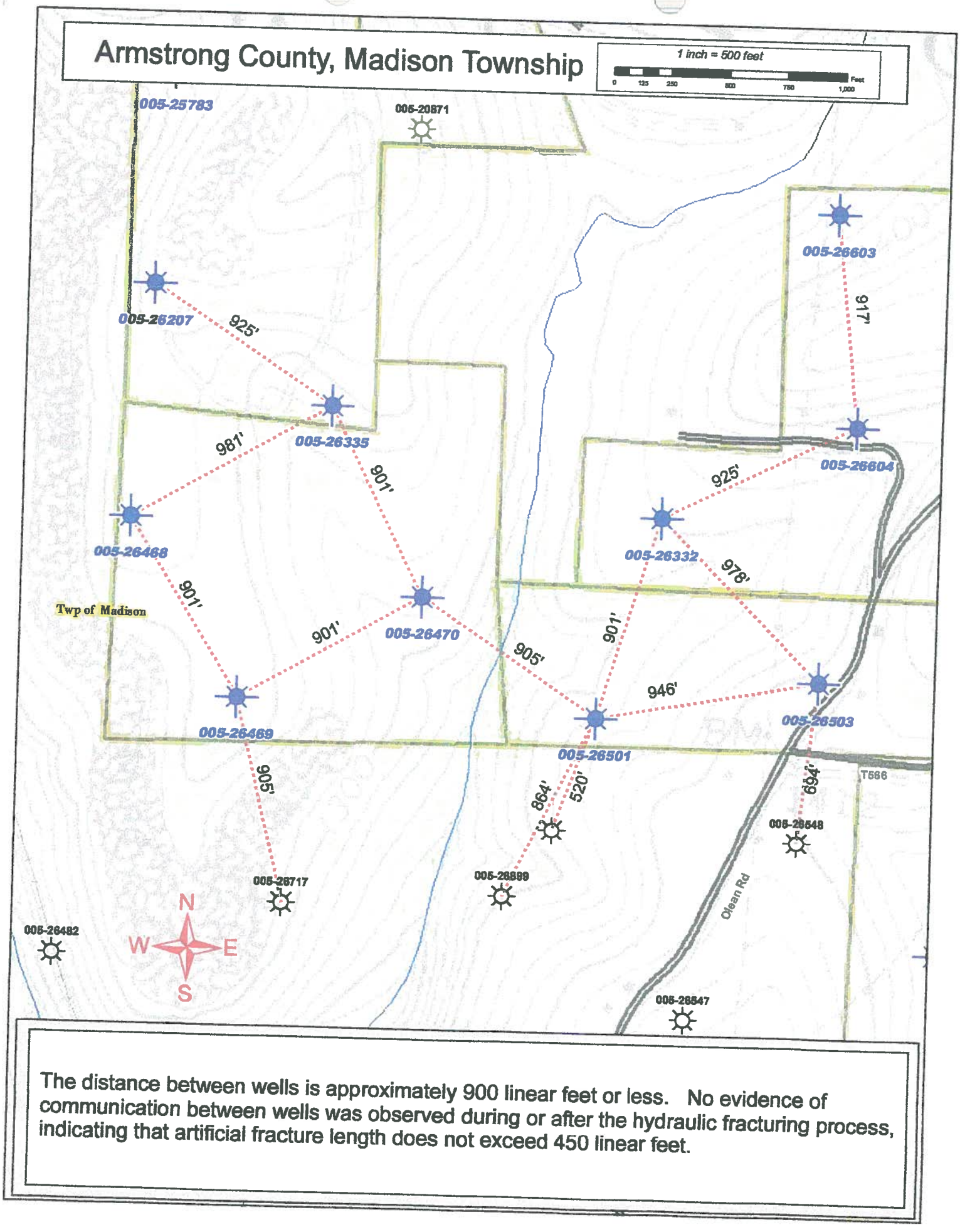
CAMERON Energy Company

Cameron Energy Company
450 Saybrook Road
Sheffield, PA 16347
Office: 814-968-3337
Fax: 814-968-3330

Exhibit

Conventional Well Field

Cherry Grove Township, Warren County
Pennsylvania



The distance between wells is approximately 900 linear feet or less. No evidence of communication between wells was observed during or after the hydraulic fracturing process, indicating that artificial fracture length does not exceed 450 linear feet.

Testimony for the IRRC
Harrisburg, PA
April 21, 2016
Mark B. Miller, P.G.

Testimony Concerning Site Restorations Costs for the Conventional O&G Industry

Hello, my name is Mark Miller and I am here to speak about Chapter 78.65 site restoration requirements.

I am a Pennsylvania Licensed Professional Geologist who works for the Consulting firm of Moody and Associates, Inc. I have 27 years of experience working with the oil and gas industry with Moody. Moody has approximately 80 employees, down from about 120 just a few years ago, and has been in business for 125 years. Moody has been providing consulting services to the oil and gas industry for approximately 40 years.

Site restoration requirements under 78.65 apply when a conventional operator reaches the post drilling phase and when the operator reaches the well plugging stage, with a final site restoration requirement to approximate original grade as it existed before drilling when complete. This will cause significant cost to conventional operators.

Chapter 78.65 states that operators must comply with Chapter 102.8(g) provisions related to Post Construction Storm Water Management and Best Management Practices. These provisions do not currently apply to conventional operations less than 5 acres in size. Conventional well pads are typically less than 5 acres in size.

Even though well pad sites are typically less than 5 acres in size, the implementation of these provisions will result in the increase in the overall site disturbance area to install these storm water management features. More earth disturbance will result in the needless and unjust loss of trees and vegetation to install these features, with no real added benefit.

Moody and Associates and Hanover Engineering Associates, Inc. provided estimated costs for these new provisions for Post Construction Storm Water Management and Best Management Practices requirements to the conventional industry, and these costs range from 33K to 84K. These costs do not fully take into consideration all potential construction and operation & maintenance costs as each well site is unique. These are enormous costs to a conventional industry where a typical oil well costs $130K and a typical gas well $250K.

The PA DEP estimated the new costs associated with complying with site restoration and the 102.8(g) provision to be Zero dollars.

When you take these unjust costs into consideration along with the other testimony that you hear, I respectfully request that you disapprove the proposed regulations.

Good afternoon. My name is Douglas Jones and I am employed by Catalyst Energy, Inc.

I have an Associate of Science from the University of Pittsburgh, Bradford, PA campus, in Petroleum Engineering Technology. I have over 35 years of experience in all aspects of oil and gas development and production, first with Quaker State Corporation and presently with Catalyst. I have been with Catalyst for almost 18 years.

Catalyst Energy, Inc. is one of the largest conventional operators in Pennsylvania. For several years we drilled nearly 20% of all conventional wells drilled in the state. In 2016 we will drill 10 wells left over from last year's program and 3 in our current year program. Although commodity pricing is one cause regulations are another. In 2017 we do not expect to drill in Pennsylvania. Our partnership will only offer wells in areas with less punitive regulations
Catalyst is a small business. In the fall of 2014 we employed about 95 people. Currently we employ approximately 35.

The language in the pending Chapter 78 conventional regulations referring to site restoration was poorly conceived by the department. Section 78.65 (2) references restoration of site post plugging to preconstruction contours. While this new requirement sounds well-intentioned it will frequently result in serious soil and tree disturbance. For instance, well site restoration of wells on steep side slopes would often require the operator to cut timber that has grown on the slopes. The top picture shows a new well site; the excavation changed these contours here and here. The bottom picture shows a well about 15 years old and you can see that trees have begun to grow on the excavated slope. When this well is plugged decades from now, the regulation will require these trees to be cut and this dirt moved from here to here in order to return to preconstruction contours. You can also see on this picture that if preconstruction contours must be achieved, then ten to twenty feet of dirt will cover the plugged well. This regulation overlooks that it is sometimes necessary to re-enter a plugged well. Worst of all, there will be much disturbance of stabilized soils. Nowhere does the DEP analyze this soil and tree disturbance nor does the DEP properly analyze the cost of attempting to return to preconstruction contours.

Another reality is that small wetlands often form in the ditch or collection areas adjacent to conventional well pads. This picture shows such a site. A return to preconstruction contours will obviously disturb these small wetland areas.

In addition, the new regulation will require some post construction stormwater management structures to be permanently installed when a new location is constructed; however, the plugging language implies that the structures be removed. Do we place ourselves in violation by removing permanent structures in order to comply at the time of plugging?

The department in its analysis did not assign costs to this specific item. Costs estimated by one industry group added $5,000 to $15,000 to the cost for restoration to original contours. Plugging a conventional well currently costs a minimum of about $4,000, with very difficult wells costing several times that much. To significantly add to the cost of plugging by this new regulation will result in fewer wells being plugged. The department needs to make a reasonable analysis of costs and reasonable alternatives for small business

I also wanted to speak to corrosion protection requirements imposed on operators for storage tanks. The DEP attributed 0 cost to this new requirement but based on my experience there will be a significant cost. Cathodic protection is rarely used in the conventional industry because its cost of about

$800 per tank is prohibitive relative to the return on value. And the DEP's suggestion in the RAF that we use non-metallic tanks overlooks the fact that we must heat our tanks in the winter. The DEP agrees that there are about 150,000 tanks currently in use in the conventional industry. If cathodic protection must be installed on all 150,000 the cost is not $0—it is $120 million. And $800 per tank is not necessarily the only cost. For instance, if the tank is required to be electrically isolated from surrounding steel pipelines then costs will quickly increase. There are also costs associated with cathodic protection including testing of protection and eventual maintenance of the anodes.

The extent of the obligation under the regulation is unclear but based upon my experience the cost could exceed $120 million by tens of millions of dollars. The DEP has said the cost is $0.

In summary the department has failed to assign costs to many items, including those mentioned above, and has failed to propose alternatives for my small business.

I ask that, for these reasons the Independent Regulatory Review Commission disapprove these regulations.

3042

Kathy Cooper

From: Sam Harvey <sam@bullrunenergy.com>
Sent: Monday, April 18, 2016 12:03 PM
To: IRRC
Subject: Chap 78 Regulations
Attachments: pit liner calculation.pdf

To Whom it may concern at the IRCC,

I am planning to testify on April 21, 2016 regarding the Chapter 78 regulations and intend to use the attached document as part of my testimony. Please include the attachment as part of the materials being presented to the IRRC Board of Commissioners.

Thank you,

Sam

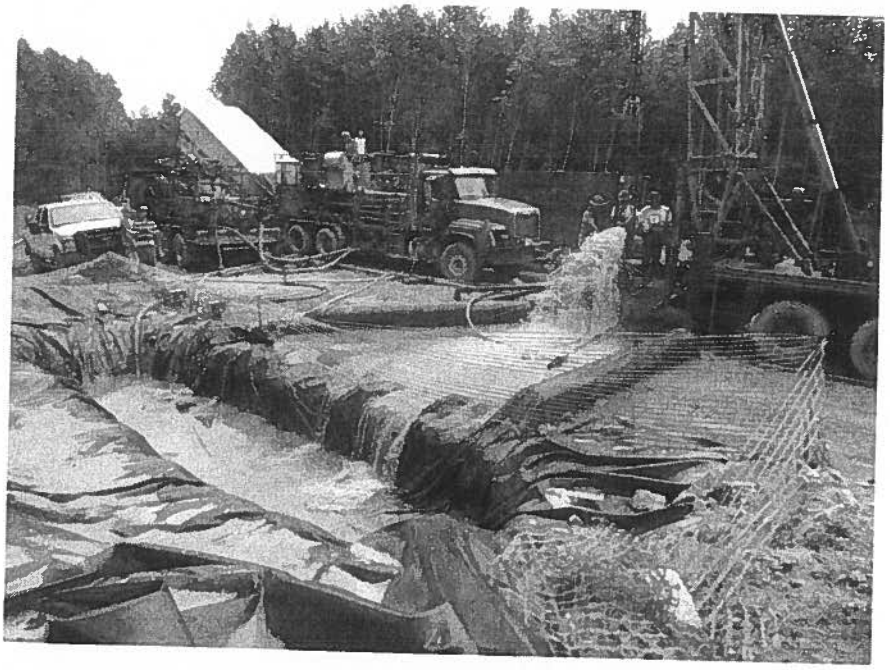
Sam Harvey
President
Bull Run Energy LLC
(814) 706-7302

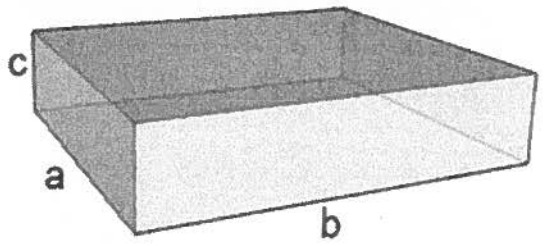
Bull Run ENERGY

DEP Pit Liner Calculation Error

RAF:

conventional operator would increase from $915 to $1864 if a 30 mil liner was required. The commenter did not provide detailed specifications for the liner described but it was indicated that the pits used in conventional well operations are typically no larger than 10 feet by 30 feet and hold less than 4,200 gallons. The liner required for a pit of that size is conservatively 650 ft^2. Based on liner pricing data available to the





Liner in pit	**liner width:**	
	bottom 30' wide	
	side a 8'	
	other side a 8'	
	side one overhang 6'	
	side two overhang 6'	
	TOTAL	58
	line length	
	cover dirt pile 10'	
	side b 8'	
	pit bottom 10'	
	side c 8'	
	side c overhang 4'	40
Liner in pit total	60 x 40	2400 sq. feet
Liner under rig	40 x 20	800 sq. feet
Total		**3200** sq. feet

Daniel Palmer

Crude Oil Buyer – American Refining Group

www.amref.com

American Refining Group is the oldest, continually operating lube oil refinery in the United States. The former "Kendall" refinery is a PA business, owned by a Pennsylvania business man, employing 350 people.

We are a small lube refinery that depends on local crude oil production. Unfortunately, shallow oil wells do not produce forever. Old wells are continuing to deplete, causing us to rely on the drilling of new wells. As you can see from the graph – in 2007-2008 there were close to 5,000 new wells being drilled per year. With the onset of recession (2008) – that number quickly dropped to about 2,200 wells in 2009; followed by a steady decline each year thereafter. You may argue the decline was due to a drop in oil prices...please note: 2007 oil was $68/bbl. and 2008 it was $94/bbl. From 2011 to 2014: we saw these prices per barrel: $90/$92/$96 and $89. In fact it was late 2014 before we saw the onset of dropping prices that are still felt today. (2015: $45/bbl., and $31/bbl. so far in 2016) The big drop in 2011 coincided with the release of new casing regulations.

The decrease in new wells drilled – led to the decrease in local oil production. In 2014 ARG paid $191 million to local oil producers, in 2015 that number fell to $91.4 million. The decrease in local production has forced ARG for the first time – to search outside of our local area for compatible crude oil sources. We are evaluating crude oils from Tennessee, Kentucky, Michigan...even into Ontario and Quebec, Canada. Obviously we would rather purchase crude oil from our local producers because (1) it is more cost effective – less shipping costs, (2) we are guaranteed the same high quality product – maximizing our efficiency, and (3) we are able to infuse the local economy financially.

In conclusion, I would repeat what you have already heard many times over...due to the imbalance; we are asking that these regulations be disapproved.

Public Comment Regarding
Revised Chapter 78 Conventional Wells and Chapter 78a Unconventional Wells
by the League of Women Voters of Pennsylvania
to the Independent Regulatory and Review Commission
Harrisburg, Pennsylvania
April 21, 2016

Good morning and thank you for the opportunity to speak to you today. My name is Suzanne Almeida and I am the executive director of the League of Women Voters of Pennsylvania. The League is dedicated to encouraging civic participation and working to ensure policymakers, the media, and all Pennsylvanians understand the important issues facing our Commonwealth.

The League firmly supports the adoption of the proposed regulations before you today. These regulations were the product of an extensive and transparent process that solicited and received thousands of public comments, both written and presented in a series of public hearings across the state. The League presented comments and recommendations on the regulations and greatly appreciated the opportunity to advocate on behalf of our 1800 members in Pennsylvania. We would like to take this opportunity to commend DEP for their commitment to this unprecedented level of public input and transparency.

Nearly six years ago, our 1800 members, through statewide study and consensus adopted a position emphasizing the need for "the maximum protection of public health and the environment in all aspects of natural gas production, site restoration, and delivery to the customer, by requiring the use of best practices and promoting comprehensive regulation, communication, and adequate staffing across government agencies." Based on our review of the proposed regulations, we believe that acceptance of these regulations is not only consistent with our position, but in the best interest of all Pennsylvanians.

The current regulations were last updated fifteen years ago. Since then, our understanding of the impacts of drilling on public health, safety, and our environment has changed drastically. And we are still learning. As part of our Straight Scoop on Shale project, the League has issued an annual update to our Shale Gas Extraction and Public Health Resource Guide. This update is necessary because understanding of the public health risk changes constantly. As the understanding of the consequences of drilling has changed, so too must the regulations that are put in place to protect us.

Pennsylvanians are also much more aware of the issues surrounding drilling in our state than they were when the regulations were implemented in 2001. That is why the proposed regulations requiring increased public communication about planned drilling are crucial. Pennsylvanians deserve the right to receive timely information about events that will have a direct impact on their personal health and the well-being of their community. Additionally, provisions that require

more stringent and timely reporting of spills and contamination will ensure that Pennsylvanians have access to the information they need to assess the risks for themselves.

In addition to understanding about the impacts of drilling, technology has also changed drastically making it more feasible for greater environmental protections to be put in place. As with anything, the longer it is practiced, the cleaner and faster it should be able to be done. The proposed regulations do nothing more than require industry professionals to take advantage of the knowledge and technological advances they have gained.

It's important to note that these proposed regulations address commonly understood environmental and health threats created by the lack of an adequate regulatory scheme. Regulations such as the requirement that secondary containment systems are used to combat the inadvertent and unauthorized release of regulated substances, and the requirement that operators restore sites to how they were, including filling pits, removing drilling supplies, and, most importantly, restoring degraded water supplies to Safe Water Drinking Act standards are commonsense, basic regulations that should have been implemented years ago. Additionally, the League fully supports the ban on open-air wastewater pits. Materials also evaporate into air from open air waste water pits. Under the temperature and pressure of the underground fracking process, stuff/chemicals may dissolve into water that are not soluble under room temperature and pressure. Those stuffs may "evaporate" from a waste water pond. Open waste ponds for any purpose are a bad idea. It is crucial that these regulations are accepted in order to mitigate any additional environmental damage.

The existing regulations are inadequate to protect the health and safety of Pennsylvanians or to uphold the constitutional guarantee of clean air and pure water. While there is certainly room to quibble over some specifics in the proposed regulations, it is important to not let the perfect become the enemy of the good.

The proposed regulations represent a positive step forward for Pennsylvania. On behalf of the League of Women Voters of Pennsylvania and our 1800 members statewide, I strongly encourage you to approve the proposed regulations. Thank you for this opportunity to speak with you.

304

Kathy Cooper

From:	Dave Ochs <DOchs@kriebelgas.com>
Sent:	Monday, April 18, 2016 3:00 PM
To:	IRRC
Cc:	Shane Kriebel
Subject:	Environmental Protection Performance Standards at Oil and Gas Well Sites #7-484 (IRRC# 3042) - Comments
Attachments:	IRRC Testimony Ch 78 Conv Oil and Gas 4-21-16.pdf; COGAC to EQB Final Report 01-04-16.pdf

Dear Chairman and Members of the Commission:

Please accept the attached comment document titled, "IRRC Testimony Ch. 78 Conv Oil and Gas 4-21-16". With your permission, I'd like to present this to you during the comment period of the April 21st meeting. For your convenience, I've also attached COGAC's report to the EQB dated January 04, 2016.

Both Shane Kriebel and I plan to attend the meeting and if possible, we both would like to reserve a space in the meeting room.

Respectfully,

Dave Ochs
Senior Geologist
Kriebel Resources Company
Office – 814-226-4160
Mobile – 814-931-4812

3042

**Report of the Pennsylvania Department of Environmental Protection's Conventional Oil and Gas Advisory Committee (COGAC)
to the Pennsylvania Independent Regulatory Review Commission (IRRC)**

Concerning

Proposed Amendments to 25 Pa. Code Chapter 78 Environmental Protection Performance Standards at Oil and Gas Well Sites, Subchapter C

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IRRC

Presented April 21, 2016

Chairman and Members of the Commission:

My name is David Ochs; I am a geologist for a conventional oil and gas production company located in Clarion, Pennsylvania. I also serve as Chairman of the Conventional Oil and Gas Advisory Committee (COGAC). My comments will focus on the failure of the Department of Environmental Protection (DEP) to make appropriate use of COGAC's expertise and the resulting flaws contained in the regulations before you.

In early 2016, the DEP appointed the membership of COGAC. The five voting members include a petroleum engineer, a petroleum geologist, an experienced oil and gas driller, a mining engineer from the coal industry, and a geologist representing the Citizens Advisory Council as well as the public interest. Three non-voting members also serve on the Committee.

As drafted by the Department, COGAC's purpose states: The Pennsylvania Department of Environmental Protection shall consult with the Advisory Committee in the formulation, drafting and presentation stages of all regulations promulgated under the 2012 Oil and Gas Act and the Advisory Committee shall be given a reasonable opportunity to review and comment on all such regulations prior to the submission to the Environmental Quality Board.

Given that stated purpose, I am deeply troubled that COGAC was not afforded the opportunity to participate in the formulation and drafting process. To date, COGAC meetings have consisted of DEP presentations of materials already drafted by the Department. COGAC has been given opportunity to review and comment on these already-existing drafts, but has never been given the opportunity to assist the Department in the formulation and the drafting stages. As a result, COGAC did not participate in key formulation elements including what the costs of the new regulations would be, whether there are less costly alternatives to achieve the desired goals, and what those goals for change are—in other words, why is there a need for revisions to the existing regulations.

COGAC's attempts to investigate the formulation elements were denied. COGAC asked to review and comment on the materials by which the DEP arrived at its cost calculations, but was denied that opportunity and told that our questions would be answered when the DEP published its revised Regulatory Analysis Form (RAF). Similarly, COGAC asked to review and comment on data relied upon by the DEP. Again, COGAC was not provided with that data and it was not until the RAF was presented to the Environmental Quality Board on January 6, 2016 that COGAC was made aware of any data sources used by the DEP. Similar frustration revolved around the many new forms required under the revised regulations.

Although there has not been opportunity for COGAC to express its concerns in the formulation process, COGAC members are very much concerned that revised regulations may be premised on faulty science or on no science at all, that the costs estimated by the DEP are incomplete and in some cases grossly understated, and that because the goals for change are not stated, therefore it is impossible to discuss whether there are alternatives that should be considered for small businesses—businesses that may suffer greatly under the new paperwork and other administrative requirements. COGAC discussed these concerns in a 43 page comment document submitted to the EQB on January 4, 2016. I provided a copy of that document to the IRRC and I respectfully ask that the content of that document be considered as the IRRC addresses the question of whether the new regulations meet the requirements of section 5.2 of the Regulatory Review Act.

As evidenced by the drastic decrease in conventional well activity, it's clear that Pennsylvania's conventional oil and gas industry is struggling to stay afloat. However, this downturn provides us with an opportunity; the downturn brings into focus the importance of the Regulatory Review Act and its goals that new regulations do not impose hidden costs and unreasonable paperwork burdens; that small businesses be freed from job-killing regulations where reasonable alternatives can be utilized; that new regulations be developed on the basis of real need; and that new regulations achieve the desired balance of environmental protection and optimized development of conventional oil and gas resources. The members of COGAC welcome the opportunity to help achieve those goals.

COGAC recognizes the need for and welcomes a robust oil and gas regulatory program in Pennsylvania. However, we must continue our effort to ensure that the regulations do not overreach what is needed to protect the environment and public health and that the ability to optimize development of conventional oil and gas resources is maintained. For reasons that I've discussed today as well as the numerous concerns described in COGAC's report to the EQB dated January 4, 2016, I ask you to disapprove this final-form regulation.

Thank you very much for your time and attention.

Report of the Pennsylvania Department of Environmental Protection's Conventional Oil and Gas Advisory Committee (COGAC) to the Environmental Quality Board (EQB)

Concerning

Proposed Amendments to 25 Pa. Code Chapter 78 Environmental Protection Performance Standards at Oil and Gas Well Sites, Subchapter C

Submitted January 04, 2016

Executive Summary

The Conventional Oil and Gas Advisory Committee (COGAC) was formed in March 2015 to serve as an advisory board to the Pennsylvania Department of Environmental Protection (DEP or Department). The bylaws of the COGAC charge it with the "review and comment on all…regulations" promulgated under the 2012 Oil and Gas Act prior to submission of the regulations to the EQB.

At the same time, the established members of the Oil and Gas Technical Advisory Board (OGTAB) were replaced with an entirely new group of professionals. Obviously, the current OGTAB and COGAC members have not had the opportunity to assist with the revisions to Chapter 78 from the beginning. Moreover, the work commenced by the new OGTAB and COGAC members in March, 2015, was hampered by the need for the early meetings to grapple with housekeeping matters. In the few meetings dealing with the regulatory provisions, the format has been for the DEP to provide verbal presentations of material already prepared by the DEP. Neither advisory board has been invited to discuss foundational matters such as the need for regulatory revision, alternatives for small business, or costs of proposed changes. In many material ways the expertise and knowledge of the members of the advisory boards is not reflected in Final Rule. For that expertise and knowledge to be reflected will require several more meetings and the all-important discussion of those foundational matters. The members of COGAC stand ready to perform that work.

On October 27, 2015 the OGTAB adopted a resolution which provides that OGTAB would "incorporate the comments or reports on Chapter 78 that are developed by COGAC into the written report concerning the Department's proposed amendments to Chapter 78 and Chapter 78a that OGTAB will present to the Environmental Quality Board under Section 3226(d) of Act 13." Accordingly this report is respectfully submitted to the EQB and to the OGTAB.

On October 29, 2015, the COGAC unanimously adopted a resolution which, among other things, resolved that the proposed regulatory package for conventional oil and gas wells (Chapter 78) before you today (the "Final Rule) should not be advanced to this Board. (A copy of the resolution is attached as Exhibit A.) This action was not taken lightly as COGAC recognizes the need for and welcomes a robust oil and gas regulatory program in Pennsylvania. The Final Rule, however, overreaches that which is needed to protect the environment; the overreach is so distinct that the program will unnecessarily discourage conventional oil and gas production rather than encourage the optimal development of Pennsylvania's conventional oil and gas resources. More specifically the Final Rule places unneeded and unreasonable burdens on the industry and was developed without the proper process required for all regulatory action in Pennsylvania.

The COGAC members believe that the Final Rule arrived at this end because required rulemaking steps were not followed. In the "Discussion," below, COGAC will detail how key aspects of the Final Rule were conceived without the requisite foundational steps of a financial analysis of the regulatory costs, the statement of need, data, the analysis of alternatives for small business, and the provision of forms required by the proposed regulations.

Because key rulemaking steps were not followed COGAC members observe there exists no explanation why certain items of the new regulations are proposed, the cost of the majority of the regulations were not calculated, that without forms and other documents the extent of the regulatory burdens remains unknowable, and that the proposed regulations do not comport with data and "in-the-field" experience known to the COGAC members.

In the "Discussion" COGAC will also examine specific regulatory provisions. The authorizing legislation requires a balanced approach to the goals of protecting the resources of the Commonwealth and insuring the optimal development of its oil and gas resources. In many instances, discussed below, the substance of the proposed regulations does not achieve that legislative purpose. Moreover, there are portions of the Final Rule wherein it is impossible to determine if the substance of the proposed revision is appropriate because the rulemaking steps are not complete, and the information that would have been derived therefrom (such as the cost of the proposed regulation or the required forms associated therewith) is unavailable. In those instances, the substance of the regulation is also flawed because it is impossible to know if the proposed regulation achieves the legislative purpose. Some of the key regulatory provisions that will be discussed include:

- **§ 78.1 Definitions**
  - The Department has proposed a new definition of "other critical communities" that is without legal or scientific foundation. The proposed definition sweeps in vague and limitless species to be reviewed in the well permit application process.

- **§ 78.15 (f) Permit Applications – Public Resource Agencies**
  - The Final Rule would add counties, municipalities, and school districts to its list of "public resource agencies," along with new obligations for well permit applicants to provide notice to such agencies. This definition of such agencies beyond the state and federal agencies that are authorized by statute to protect the public natural resources of the Commonwealth is outside the scope of EQB's authority, is unnecessary, and is contrary to the express purpose of Act 13 to promote the optimal development of oil and gas resources.

- **§ 78.51 Protection of Water Supplies**
  - This aspect of the Final Rule would create an unreasonable burden for the operator to potentially restore an impacted water supply to a level better than what existed prior to drilling. After more than two years of development, the Department has acknowledged that the technical feasibility and financial obligation of this requirement are unknown and will not be known until "guidance documents" are promulgated. However, this provision is substantially more stringent than comparable provisions in other DEP regulations. A mining industry representative noted that water replacement costs typically range from $50,000 to more than $100,000.
  - Further, the Department is imposing standards for the replacement of water supplies that are unregulated, have no construction standards, and are not subject to state or federal water quality standards.

- **§ 78.52a and § 78.73 Area of Review**
  - The Final Rule overstates the area around a conventional well that may be impacted by hydraulic fracturing and thus adds an unneeded and unnecessary burden to the industry.
  - The extent of the burden is unknown until "guidance documents" including forms required by the regulation are promulgated. However, it is certainly clear that the obligations will far exceed the $0 cost estimated by the RAF.
  - Although guidance documents are not yet issued, comments by DEP staff at COGAC meetings and the revised language of the Final Rule suggest under this section, the DEP could disallow the completion of a new well, thus elevating this section to a new permitting provision, beyond the Department's statutory authority for permit denial.

- **§ 78.55 Site Specific PPC plans**
  - The conventional industry frequently clusters wells and gathers fluids from those wells at a single location; the current practice is to use a single PPC plan for those many wells. The Final Rule, requiring a plan at each of the more than 100,000 conventional wells sites, adds remarkable cost for little to no benefit, inasmuch as the plan details (contractors, supplies, etc.) are similar from site to site. Although DEP staff has stated it is not the purpose of the Final Rule to require site specific PPC plans, the rule, as written, nevertheless contains that obligation.

- **§ 78.65 Site Restoration**
  - The Final Rule requires sites to be restored to "original" or "preconstruction" contours. This is an ill-fitting standard for conventional oil and gas sites which are very small and the majority of which have been in place for decades. Timber has grown on the sites, crops are planted immediately next to conventional wells, and the disturbance to return to original contours would impart more harm than any perceived benefit.
  - Original or preconstruction contours are impossible to know for the majority of conventional wells, most of which are decades old, or in many cases more than 100 years.

- **§ 78.66 Spills and Releases**
  - The Final Rule would inappropriately apply provisions of the Pennsylvania Land Recycling Program (Act 2) to minor spill investigations and cleanup and in so doing would violate the intent of this program established in 1995 to be a voluntary program to encourage the reuse of blighted lands. Further, the Final Rule would establish spill threshold values for brine that are many times more stringent than more toxic, listed hazardous substances. While the Department apparently views brine as being more toxic than many listed hazardous substances in the Commonwealth, COGAC does not share this view and believes this section fails to meet the requisite legislative balance.

- The Final Rule requires oil and gas operators to comply with Act 2 for remediation of spills, when that program is voluntary for all other entities and industries, including manufacturing, power generation, chemical facilities, and more.
- COGAC suggests that the provision which allowed either the use of Act 2 or an alternative method for spills over 42 gallons be allowed as written in previous drafts of the proposed changes to Chapter 78 Subchapter C regulations.

- **Forms**
  - No less than a dozen forms are referenced in the proposed rule that have not been made available for review and comment prior to drafting of the Final Rule. As demonstrated by the controversy created by the Mechanical Integrity Assessment forms, the Department attempts to expand the plain meaning of regulation through the development of forms needed for implementation. The Department's refusal to release the forms for public comment is inappropriate and contrary to the Regulatory Review Act.

- **Advance Notifications**
  - The Final Rule includes multiple points where verbal reporting of certain activities would be required before those activities may begin in the field. While this may be feasible for unconventional wells that take weeks to complete, it is not feasible for shallow conventional wells that are often drilled or completed in three days or less.

- **Procedurally, the following flaws are noted:**
  - The Department failed to conduct and share a financial analysis of the impacts this rule will have on the stakeholders
  - The Department failed to demonstrate or state a compelling need for the regulatory changes proposed
  - The Department failed to provide the required data to support the need of this regulation
  - The Department failed to provide a required regulatory flexibility analysis
  - The Department failed to Provide Authority for the Regulatory Requirements
  - The Department failed to provide numerous forms integral to this regulation for review and comment by the public and interested parties

Procedural Background

The proposed revisions to Chapter 78 Subchapter C regulations were first published December 14, 2013. In association therewith the DEP published a Regulatory Analysis Form (RAF). The RAF is a document required under the Act of June 25, 1982 (P.L.633, No.181), known as the Regulatory Review Act (RRA). The RRA requires that the RAF be published on the same date as the proposed regulations. The RRA also requires that the RAF include over one dozen enumerated items such as estimates of the direct and indirect costs of the proposed regulations,

statement of the need, the data supporting the proposed regulations and the like. The RRA also contains an expression of intent "to improve State rulemaking (by making available) more flexible regulatory approaches for small businesses."

In June 2014, the legislature passed, and the governor signed, Act 126, which requires the DEP to promulgate separate regulations for Pennsylvania's conventional oil and gas industry. In April 2015 the DEP published an Advance Notice of Final Rulemaking (ANFR). The April 2015 ANFR, for the first time, published separate regulations for Pennsylvania's conventional oil and gas industry. However, it is observed that the separate conventional regulations were a selective "cutting and pasting" of material from the original December 14, 2013 publication (as the foundation for the revisions and new subject areas). To date there has been no process by which separate conventional regulations have been published as a proposed rule or accompanied by any separate RAF analyzing the need, cost or other topics addressed in the RRA and which relate to Pennsylvania's conventional oil and gas industry.

Additionally, the ANFR introduced significant additions and revisions to the proposed rule without explanation, without a revision of the RAF, and without describing the rationale for changes made in response to previous comments from the public, the IRRC, the legislative committees, or any other sources. Without such revised or accurate information about costs, anticipated impacts, justification, data or analysis, COGAC was ill-equipped to respond to DEP's presentation of the revisions prior to publication of the ANFR. Without a description of the public comments received following the ANFR, or the DEP's response to those comments, COGAC members remain incapable of providing fully informed comments on the Final Rule that has been submitted to EQB.

In August and October 2015 the DEP posted additional redline versions of its regulatory package. The August 2015 version made yet additional modifications to the proposed regulations affecting conventional oil and gas operations. The August and October 2015 versions were not accompanied by a new or revised RAF; there were still no accompanying documents explaining the DEP's rationale for the several changes or in any other way providing an analysis of the public comments from the 2014 public comment period.

COGAC is concerned that the DEP used the ANFR to substitute for its rulemaking obligations, primarily with respect to the conventional rule, which was published for the first time in the ANFR as a new and separate rule. COGAC understands that newly proposed regulations, such as the new and separate conventional rule, must be presented to IRRC, along with a Regulatory Analysis Form. The ANFR entirely failed to satisfy those requirements, which were adopted to ensure that all rulemaking is done with the utmost transparency and opportunity for public scrutiny. The Final Rule accordingly suffers from a foundational flaw, the lack of a legitimate proposed rulemaking process.

Discussion

A) Matters of Procedural Concern

Failure of Financial Analysis: The RAF failed to provide an appropriate financial analysis of the regulations proposed in 2013. First, the DEP document was silent as to the cost of 10 of the 13 major regulatory sections affecting conventional operations. Second, the DEP's financial analysis pertained exclusively to costs incurred in the drilling of new wells; the DEP analysis ignored the costs of bringing Pennsylvania's 100,000+ existing (legacy) wells into compliance. Finally, the RAF ignored the ongoing costs of maintaining Pennsylvania's conventional wells in compliance with the new regulatory requirements.

The DEP estimated the cost of compliance at between $5 million and $12 million. Obviously, for the reasons stated above, that estimate is incomplete. The COGAC notes that an industry trade group, Pennsylvania Grade Crude Oil Coalition (PGCC) submitted a 28 page document supported by numerous spreadsheets, which purported to analyze estimated costs for initial and ongoing compliance for all 13 sections contained in the 2013 revisions, for both new and legacy wells. The PGCC estimate was between $.5 billion and $1.5 billion. That the DEP analysis is incomplete, and that such a wide gulf exists between the incomplete DEP estimate and an industry estimate, is of serious concern.

Further, the new regulatory burdens contained in the various drafts and revisions to the ANFR published in 2015 or the Final Rule were not the subject of any financial analysis by the DEP.

The failure of financial analysis is a fundamental omission in the development and analysis of the proposed regulations. The process dictated by the legislature for the adoption of new regulations regards cost analysis as a key component. For example,

- In the RRA's statement of Legislative Intent (Section 2(a)) the Legislature provides: "The General Assembly finds that it must establish a procedure for oversight and review of regulations adopted pursuant to this delegation of legislative power in order to curtail excessive regulation and to require the executive branch to justify its exercise of the authority to regulate before imposing hidden costs upon the economy of Pennsylvania." (Emphasis added)
- At Section 5 (Procedure for Review) the Legislature requires the regulatory body to provide estimates of costs as to all of the proposed regulation (not merely 3 of 13 sections). The statute is, of course, quite specific as to the financial data to be provided and that the same is to be delivered prior to the public comment period so that the intended dialogue is sufficiently informed.
- At Section 5.2(1) the legislature imposes upon the Independent Regulatory Review Commission (IRRC) the obligation to determine several specific items about the financial impact of the proposed regulation. The statute requires that this financial information be available "on the same date" that the proposed regulation is published.

Clearly, the IRRC cannot carry out that function, nor can the public comment contemplated in the RRA be conducted, because the financial information was not provided at the requisite time.

The void of financial information is the undesirable breeding ground for the "hidden costs" the statute is intended to prevent.

Failure to State Need: Section 5.2(b)(3)(iii) of the RRA requires that a statement of need be published at the time the proposed regulations are advanced. There has never been a separate statement of need published as to the proposed conventional oil and gas regulations, and the statement published in 2013, wherein the proposed regulations combined both conventional and unconventional operations, focused on the need relative to unconventional operations. In April 2014 the IRRC commented upon the statement of need as follows:

> Section D of the Preamble to this rulemaking relates to background and purpose. It notes the following: "The 2012 Oil and Gas Act contains new environmental protections for ***unconventional*** wells and directs the Board to promulgate specific regulations. For these reasons, the (EQB) initiated this proposed rulemaking." (Emphasis in original.) Commentators representing the conventional oil and gas industry believe this rulemaking will have a serious negative impact on their businesses. While we understand that EQB has the authority to amend its regulations relating to conventional wells, we ask for a detailed explanation of why more stringent regulations for the conventional oil and gas industry are needed at this time. Has EQB witnessed an increase in environmental mishaps or violations from conventional well operators? What problem is EQB attempting to correct through this proposal with respect to conventional wells?

The "detailed explanation of why more stringent regulations for the conventional industry are needed" has never been provided by the DEP. The "need" documents are integral to the process, and as with the missing financial analysis, cannot be added merely at the end. Without the anchor of "need," there is no end to the number of new regulations which the imagination can conceive and develop.[1] The Legislature recognizes that risk, stating (at Section 2) the RRA is adopted "...in order to curtail excessive regulation and to require the executive branch to justify its exercise of the authority to regulate..." (Emphasis added.) That a new regulation might seem like a good idea to some is not enough. The need must be "justified" in the Preamble, and the comment period unfolds to discuss and allow that justification to be tested. Moreover, and as discussed in more detail below, that test is particularly relevant when the regulated community consists of small businesses. It is impossible for small business alternatives be tested for merit when there is no statement of need. Similarly, it is impossible to determine if small business alternatives are viable when the goal to be achieved is not set out by the regulatory body in a statement of need.

Failure to Provide Acceptable Data: The RRA also speaks to the requirement of acceptable data. Among the statutory charges to the IRRC is the duty to determine "whether the regulation is supported by acceptable data" (RRA Section 5.2(b)(3)(v) and (b)(7)). At Section 6 of its April, 2014 comments the IRRC discussed section 28 of the RAF wherein the DEP stated that "Data is not the basis of this regulation."

The IRRC then stated:

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[1] Just four months after the issuance of the April 2015 ANFR the August redline draft was issued—it added many new or amplified regulatory sections. A summary of the August ANFR redline changes is attached as Exhibit B.

If data is not the basis for this regulation, how did EQB determine that the many standards being imposed are adequate? As noted in our first comment, various segments of the regulated community have opposing views on many provision of the proposal. Those commentators often call for either: more stringent regulations, less stringent regulations, no regulations at all or a more flexible regulatory approach to standards being put forth. Since the regulation is not based on data, we ask EQB to explain how it determined that the numerous standards being proposed are appropriate and why it believes those standards strike the appropriate balance between environmental protection and the optimal development of the oil and gas resources of this Commonwealth.

The lack of data made it impossible for the COGAC members to apply their experience and make a rational analysis. As noted in the substantive discussion, below, the experience of the COGAC members leads them to believe that many of the proposed standards are either unnecessary or are far out of balance with any need or data that might pertain to the protection of the Commonwealth's resources.

Failure to Provide a Regulatory Flexibility Analysis: The statutory charge of the RRA also requires the promulgating agency to provide a regulatory flexibility analysis and to consider various methods of reducing the impact of the proposed regulation on small business. (RRA Sections 5(a) (12.1) and 5.2(b) (8)). Under the RRA the analysis is to consider the following:

1) Less stringent compliance or reporting requirements;
2) Less stringent schedules or deadlines for compliance or reporting requirements;
3) Consolidation or simplification of compliance or reporting requirements;
4) Establishment of performance standards to replace design or operational standards; and
5) The exemption of small businesses from all or any part of the requirements contained in the rule.

Despite the RRA mandate, and the fact that the vast majority of conventional oil and gas operators are small businesses, the Final Rule for conventional oil and gas does not contain any accommodation for small business. Concerning this omission, the IRRC stated in its April 2014 comments: "...we agree that more information is needed in the RAF. We ask EQB to provide the required regulatory flexibility analysis for each section of the proposed rulemaking."

The DEP/EQB has not yet provided the flexibility analysis for each section. It would have been useful, and in accord with the intent of the RRA, if the analysis of alternatives had unfolded long ago so that meaningful comment could have occurred.[2] Indeed, the members of COGAC would be willing to provide information relative to alternatives and to help analyze the same if DEP or EQB were inclined to utilize the COGAC in this method. However, to date, the COGAC has not been so utilized. The failure to state need and the failure to rely upon data have great bearing on small business alternatives. It is impossible to consider whether less stringent alternatives meet a legitimate regulatory need, when that need is not stated. Similarly it is impossible to analyze or

[2] Section 5 of the RRA requires the RAF to be submitted "on the same date" that the regulation is submitted to the LRB for publication in the Pennsylvania Bulletin, and it is the RAF which is to include the specific analysis items set forth above.

comment upon whether alternative performance or operational standards will meet a legitimate regulatory need when the data that underlies the regulatory need is not stated.

Failure to Provide Authority for the Regulatory Requirements: The statutory charge of the RRA also includes the obligation of the regulatory agency to provide "a specific citation to the Federal or State statutory or regulatory authority or the decision of a Federal or State court under which the agency is proposing the regulation..." (Section 5(a)(1.1)). In its April 2014 comments the IRRC identified several regulatory sections for which it asked the EQB to explain its authority for regulation.

That explanation was not provided, and as with the regulatory flexibility analysis, it would have been necessary for that explanation to have unfolded long ago if there were to be meaningful comment.

Failure to Engage in Steps Necessary to Achieve Consensus: The goal of "consensus," identified as part of the Legislative Intent of the RRA, was ill served by a host of matters including the failure to meet the statutorily mandated obligation to provide the legislative need, financial analysis and other components on the "same date" as delivery of the proposed regulations to the Legislative Reference Bureau (LRB). COGAC believes that it can play an effective role in achieving the legislative goal of consensus and that the experience of COGAC members could be more effectively employed in the following particulars:

Process: The meetings with COGAC and DEP employees have been structured so as to have COGAC members review regulatory provisions already drafted by DEP staff. The expertise of the COGAC members was not drawn upon to discuss need, cost, and alternatives because the regulation is already drafted. The agenda has been exclusively the review of a product already crafted, making it unwieldy to discuss the underlying questions of whether the proposed regulation is necessary, whether the cost is appropriate to the benefit achieved, and whether alternatives are fitting. Attempts to move into those arenas are clearly off-agenda and, as noted below, are often impossible because the necessary data or forms are unavailable.

Data: COGAC members have asked the DEP to explain the underlying data, need and authority for various provisions being discussed in the course of the meeting. The DEP has generally refrained from doing so, stating instead that the COGAC members would be "surprised" by such data and justification to be provided with the Final Rule submission to EQB in January 2016. It is contrary to both the letter and spirit of public rule making process, as well as of the stated purposes of COGAC and OGTAB, to deprive the boards, legislators, regulated entities, stakeholders and the public at large of the most basic information - to explain why any revision is needed at all. This information should have been provided with the initial proposal in 2013, so that all comments could be informed by and responsive to the stated need for revision. Without knowing why a revision is needed, commenters could only guess what the DEP was trying to accomplish. Similarly, COGAC cannot provide informed comment in the vacuum created by the lack of data, financial analysis and so forth.

Forms and Guidance: The draft rules describe numerous new forms that will be necessary to implement the final rule, and the DEP has stated that guidance documents will be

necessary for numerous sections of the rule. Despite the obligation in Section 5(a)(5) of the RRA to submit copies of forms required for implementation on the same date as submission of the proposed rule, no draft forms or guidance documents have been provided to OGTAB, COGAC or the public. The DEP mentioned that it would be, and has been, creating "highly technical" workgroups, by invitation only, to develop guidance documents, but is not undertaking this process through OGTAB or COGAC. All forms and guidance have the potential to expand and alter obligations created by the rules themselves, and must be provided for review and comment by the advisory boards and the public before the rule is finalized.

B) Matters of Substantive Concern

Below are sections from the Final Rule about which COGAC has substantial concern. COGAC's ability to set forth its concerns is limited to the extent COGAC has been able to obtain requisite information. For example, where the proposed regulation recites forms and the forms are unavailable, it is impossible for COGAC to speak fully to the import of or concern about the regulatory provision.

§ 78.1 Definitions

Other Critical Communities

The COGAC members struggle to understand the boundaries of "other critical communities" or what the scientific basis is for the new definition. The proposed definition includes species of special concern identified on a PNDI receipt, including plant or animal species that are not listed as threatened or endangered by any federal or state public resource agencies, plant and animal species that are classified as rare, tentatively undetermined, candidate, or proposed as threatened, endangered or rare. This definition would come into play in the well permit application process, where applicants would be required to give notice to Public Resource Agencies "responsible for managing" the habitats of these critical communities. See proposed §78.15(f)(1-4).

COGAC inquires as to the legal authority to develop such rules given that the Pennsylvania Supreme Court invalidated Sections 3215 (b) through (e) of Act 13. However, beyond the lack of authority under Act 13, the Final Rule is also both broad and unworkable, creating unpredictable and unlimited obligations to protect unknown and unknowable species and non-species resources.

Under the regulation the presence of "other critical communities" is determined by utilizing the Pennsylvania Natural Diversity Index ("PNDI") database. PNDI, however, does not use the term "critical communities." When there is a "hit" in the PNDI database, a PNDI receipt indicates that "special concern" species may be impacted by the project. "Special concern" species, however, are not defined in any state or federal statute or regulation, and no agency or entity that populates the PNDI database utilizes a consistent or public standard or process for the categorization of such species. These decisions are made without public notice, input, rulemaking or peer review.[3]

[3] This uncertainty was the subject of discussion at the COGAC meeting held October 29, 2015. As a result of that discussion it was agreed that DEP would host a meeting with TAB, COGAC and various Pennsylvania Resource

COGAC has expressed its grave worry about this change to the DEP. Other agencies will now be adding species to a list that has regulatory impact on oil and gas operators; those other agencies will be doing so without communication with, and thus presumably without concern about how the additions or associated mitigation measures will impact, Pennsylvania's conventional oil and gas industry. The list of species that would fall within the "critical communities" could change without notice on a daily, weekly or monthly basis. That will leave little certainly or predictability for conventional oil and gas operators.

This proposed change is an example of the interweaving of the procedural and substantive concerns. The proposed changes will impose both time and financial burdens depending upon the speed and quantity of species additions. The Regulatory Review Act requires that certain questions be asked. Does this new addition to the old regulation constitute what the legislature termed an "unnecessary"? Do the costs of the new additions qualify as "hidden"? Do the new additions comport with the "optimal" development of oil and gas? It is impossible to answer these questions; there is no data provided in the RAF to support the broad net cast by the proposed additions. Despite the introduction of the new time and financial burdens, the cost attributed in the RAF is, remarkably, $0. As to need, Pennsylvania's conventional oil and gas industry has operated successfully in coordination with the PNDI program to identify threatened and endangered species for many years. Yet the RAF is entirely silent as to why that coordination has been inadequate and why these new additions are necessary.

Public Resource Agency

The Final Rule would add counties, municipalities, and school districts to its list of "public resource agencies," along with new obligations for well permit applicants to provide notice to such agencies. COGAC believes that expanding the definition of such agencies beyond the state and federal agencies that are authorized by statute to protect the public natural resources of the Commonwealth is outside the scope of EQB's authority, is unnecessary, and is contrary to the express purpose of Act 13 to promote the optimal development of oil and gas resources. Like the numerous new proposals throughout the rulemaking for notice to landowners and other entities, this expansion will obstruct, rather than optimize, development of oil and gas resources.

Moreover, conventional oil and gas operators have communicated with local municipalities and school districts for decades and will continue to do so in a manner that is consistent with both the law and good community relations. The COGAC members observe there is no statement of need showing how the existing regulations are inadequate to address the needs of local municipalities and school districts. Indeed, the members of COGAC can provide many examples of cooperation with such entities that belie any such need. The reality is that nearly all conventional operators are small businesses with headquarters, or in the case of sole proprietorships, residences, in the municipalities and school districts where operations occur. Conventional well operators, local municipalities and school districts are collectively aware of local conditions and circumstances; all have co-existed for decades.

Agencies to discuss how species of special concern are categorized by those agencies. While such discussion is a positive step toward clarification, the need for the meeting exemplifies why the rule is not ready to be advanced.

§ 78.15 Application Requirements

Section 78.15(f) would add new Public Resources to the list established by the General Assembly, adding wellhead protection areas, schools, and playgrounds to the existing list of natural or entirely public resources that may trigger consideration by DEP in its well permitting. The new public resources are described as locations:

- **WITHIN 200 FEET OF COMMON AREAS ON A SCHOOL'S PROPERTY OR PLAYGROUND.**

- **WITHIN ZONES 1 OR 2 OF A WELLHEAD PROTECTION PROGRAM APPROVED UNDER § 109.713 (RELATING TO WELLHEAD PROTECTION PROGRAM).**

First, even if Department has the authority to expand the list of public resources, common areas of schools and playgrounds are simply not comparable to the areas set forth in Act 13:

- Publicly owned park, forest, game land or wildlife area;
- State or National scenic river;
- National natural landmark;
- A location that will impact other critical communities; or
- Historical or archeological site listed on the Federal or State list of historic places.

It is notable that each public resource listed in Act 13 is limited in number and unlikely to be altered or expanded without significant public notice. In contrast, the large number of "common areas" the Department would add to the list illustrates the incongruity of the additions. Obviously there are many school parcels in each county, and in the rural character of western Pennsylvania many school tracts are quite large. This combination of frequency and size will yield many "common areas" wherein the oil and gas applicants, school officials and permit reviewers will be faced with a large variety and uses of "common areas," as well as the unlimited number of measures that could be recommended by schools and parents for the mitigation of impacts. Relative to the "interweaving" of the procedural and substantive factors, the RAF attributes $0 cost to this significant new addition, considers no alternatives for small business, and fails to state the need. The necessary balancing, including whether this new language allows for "optimal" development of oil and gas, cannot possibly be accomplished in the vacuum created by these procedural failures.

Second, Act 13 expressly provides for the protection of water wells under Section 3215(a) through a setback requirement that can be waived by the owner of that supply. Given that the legislature already considered and addressed wellhead protection in this manner, COGAC is concerned that the Department has exceeded its authority and has created unnecessary, duplicative and therefore unnecessarily costly protection by expansion of the listed public resources in Section 3215(c). The legislature considered and comprehensively provided for the protection of water supplies in the adoption of Act 13 in 2012. The legislators deliberately chose to add precise protection with respect drinking water supplies in Section 3215(c) and created

obligations for the Department in Section 3218.1.[4] In the face of this comprehensive statutory scheme, the inclusion of wellhead protection areas in the permit review process is beyond the Department's and EQB's statutory authority.

Further, if the Department intends to protect some "area" beyond the setbacks and protections already specified in Act 13, neither the need nor purpose for such expansion can be gleaned from the proposed revision, preventing COGAC or anyone else from providing a well-informed comment on whether the revision properly addresses either a need or the Department's purpose in making the revision.

Act 13 also requires that permit conditions respect "property rights of oil and gas owners." Oil and gas owners own their parcels by virtue of various deeds and leases—many of which are 100 or more years old. These documents often state specific property rights such as the oil and gas owner's authority to use timber, construct buildings, use water, etc. Another property right valued by oil and gas owners is the right to use as much of the surface as is reasonably necessary and to discuss the terms of use with the surface owner. A few years ago many of us watched with great interest the case of Belden & Blake Corp. v. Pennsylvania, 969 A.2d 528, 532-33 (Pa. 2009) because it tested whether the oil and gas owner's rights were applicable when the surface is owned by public agencies. The Pennsylvania Supreme Court affirmed the old case law and held that even when the surface is owned by a public agency the oil and gas owner has the right to use the surface, that the oil and gas owner has the right to discuss that usage, and that if there is disagreement the oil and gas owner's rights are dominant and that the oil and gas owner may proceed over the objections of the surface owner. (The surface owner can object but the surface owner must shoulder both the cost of the lawsuit and the burden of proof that the oil and gas usage is unreasonable.)

Section 78.15(f)(2) does not respect these property rights. Instead of allowing for negotiation, section 78.15(f)(2) bypasses that negotiation in favor of vesting in the DEP the unilateral right to impose operating conditions. Specifically, the regulations allow the array of public resource agencies to simply communicate concerns to the DEP. The give and take of the discussion between the two owners is eradicated because, under the proposed regulations, the DEP becomes the judge of what the operating conditions should be on public lands. And under section 78.15(f)(2) the burden of bringing the appeal and carrying the burden of proof is shifted to the oil and gas owner.

Not only is this a remarkable diminishment of private property rights in the face of the legislature's express protection of same, but the proposed regulations are without any limit as to what concerns the resource agencies might submit, what constitutes a "harmful impact" under the regulations, or what the limits of mitigation might be.

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[4] Section 3215(c) provided that "Sources used for public drinking supplies in accordance with subsection (b)" be considered by PADEP when issuing well permits.

Section 3218.1. provides: "Notification to public drinking water systems. Upon receiving notification of a spill, the department shall, after investigating the incident, notify any public drinking water facility that could be affected by the event that the event occurred. The notification shall contain a brief description of the event and any expected impact on water quality" (emphasis added).

The process outlined by the Department's Final Rule improperly changes established relationships under property and contract law, and would invite unbounded suggestions for the mitigation of perceived impacts from state agencies, local municipalities and schools, in what appears to be a plan to obstruct, rather than foster, the optimal development of the oil and gas resources of this Commonwealth. COGAC members firmly believe that the costs and burdens that would be involved in such a regulatory configuration far exceed the $0 attributed in the RAF. As with the other sections, above, the failure to analyze those costs, state the need, and analyze small business alternatives, makes it impossible to balance whether the proposed regulation complies with the RRA and whether it allows for the "optimal" development of Pennsylvania's conventional oil and gas resources.

§ 78.51 Protection of Water Supplies

§78.51(d) (2) would be revised to state:

> (2) *Quality.* The quality of a restored or replaced water supply will be deemed adequate if it meets the standards established under the Pennsylvania Safe Drinking Water Act (35 P.S. §§ 721.1 – 721.17), or is comparable to the quality **OF WATER THAT EXISTED PRIOR TO POLLUTION IF THE WATER QUALITY WAS BETTER THAN THESE STANDARDS**.

This section would impose an obligation on oil and gas operators that is neither legally required under Act 13 nor practically achievable under certain circumstances. Act 13 requires impacted water supplies to be restored for the purposes served by those supplies. Chapter 78 defines water supplies to include commercial, industrial and agricultural supplies, all of which may include impaired water of varying qualities and none of which necessarily require drinking water standards. Act 13 recognizes the very different purposes of water supplies and requires water to be restored "for the purposes served." The language used in the Final Rule requires that all water supplies impacted by oil and gas operations to be restored to Safe Drinking Water (SDWA) standards or better. Restoring such supplies to SDWA standards could be an act of sheer futility, with excessive cost and no underlying rationale. This result is neither authorized nor required under Act 13 or elsewhere.

Secondly, "exceeded" as used in § 3218(a) means worse than, not better than, and is evidenced by the fact that the only other place in the Act where the General Assembly used the word "exceed" or "exceeded" in a similar context is in § 3304 related to exceeding noise standards. This usage clearly meant worse than those standards. Even though § 3304 is now enjoined, it provides a clear example of the General Assembly's usage of the term to mean worse than. Also, 25 Pa. Code Chapter 109 (safe drinking water) consistently uses the term "exceed" to refer to water that does not meet, and is therefore worse than the standard. Therefore, there is no legitimate basis for assuming that the same word means the complete opposite in Act 13.

Additionally, in public presentations the Department has acknowledged that after several years of deliberation the technical feasibility and cost to comply with this provision of the regulation is unknown and will not be known until "guidance documents" are promulgated. However, this provision is substantially more stringent than comparable provisions in other DEP regulations,

most notably the mining program where water replacement costs typically range from $50,000 to more than $100,000.

Further, the Department is imposing standards on water supplies that are largely unregulated, have no construction standards and are not subject to State or Federal water quality standards.

The revised language in the Draft Final Rule would impose obligations on oil and gas operators that are neither legally required nor practically feasible.

§ 78.52a and § 78.73 Area of Review

The proposed Area of Review (AOR) regulations address the issue of communication between a new well and an old well, during the completion (hydraulic fracturing or hydrofacture) of the new well. During the completion of a new conventional well, water and sand are injected under pressure into the oil and gas bearing formation in order to fracture the formation. If there is an old well bore too close to the new well the water under pressure can enter the old well bore. If that old well bore was not plugged the pressurized water can travel up the old well bore and escape to the surface, bringing with it oil or other contents formerly trapped in the old hole.

There are several thousand orphaned or abandoned wells; some suffer the risk described above. It must be understood, however, that communication with an abandoned or orphaned well is highly devastating to the performance of the nearby new well. Communication means that the effect of the hydrofracture is forfeited, with the hydrofracture energy instead being released into the old hole. Without successful completion (hydrofracture) the new well will be entirely uneconomic and the investment in the new well is lost unless the old hole is properly plugged so that the hydrofracture can be completed.

When the communication occurs, the "forfeiture" or "release" of energy into the old well bore is evidenced by a significant drop in pressure at the hydrofracture equipment. The normal hydrofracture operation involves the application of pressure by which the fracture in the oil and gas formation is propagated. The formation provides resistance, and throughout the hydrofracture process the pressure is maintained or builds as the fracture reaches further and becomes more difficult to maintain. However, when an old well is communicated with the resistance is lost as the hydrofracture energy rushes into the old well bore. That radical "release" is immediately registered on the pressure gauges at the hydrofracture pumps operating at the new well. Normal protocol is to discontinue the hydrofracture, confirm pressure loss is not due to equipment failure, and if communication is suspected, examine the surrounding area for signs of the same. If no surface evidence is found the existence of communication will, nevertheless, be confirmed if, upon restarting the hydrofracture, normal resistance is not obtained.

In the face of potential serious economic loss and pollution, the conventional industry is already careful to identify old holes. As a result, communication with old holes is rare. When it occurs, the orphan or abandoned well is generally very old. Usually the casing was "pulled" (meaning our forefathers removed the casing to take to another well they intended to drill). Because the casing was removed decades ago, there is no current surface evidence of the old well.

Several realities pertain to this issue:

a) A conventional operator preparing to drill and complete a new well has paramount incentive to first identify any nearby orphan or abandoned wells.
b) If the operator elects to drill a new well near any identified orphan or abandoned well, the only economically prudent action is to plug the old well bore before attempting the new well; it is far more expensive to plug an old well bore after communication than before because the communication generates cleanup costs and renders the old hole more difficult to access and prepare for plugging.
c) Under existing law and regulations an oil and gas operator is already obligated to remediate and plug any old well that the operator communicates with.
d) There is no exercise of prudence that can prevent communication with an undiscoverable old well bore. The only preventative measure is to plug the old well bore before hydrofracture—which cannot be accomplished if the old well bore is hidden.

COGAC objects to the regulation, as written, for these reasons.

1) The regulation imposes what is in reality a new permitting requirement: Section 78.52a. introduces the new requirement of a Monitoring Plan and section 78.52a(f) authorizes DEP to make a "case-by-case" determination as to the adequacy of that Plan. At the October 29, 2015 COGAC meeting, DEP staff confirmed that under section 78.52a(f) DEP can bar an oil and gas operator from completing a new well due to DEP concerns about the required Monitoring Plan.

This new permit requirement is without authority. The preparation and submission of the Monitoring Plan and the thirty day DEP review time are not sanctioned by any statutory authority. Indeed, each time it has addressed the Oil and Gas Act, the legislature has shown sensitivity to the need for the prompt processing of permits and for the provision of an appeals process in the event of permit denial. The new monitoring plan creates an entirely new permitting burden, not rooted in any legislation, and which is bereft of any appeal protection.

Further, the standards by which the DEP will allow or disallow new well completion are not known. In the Monitoring Plan the well operator must identify surrounding wells; the regulation requires the operator to make the identification by reviewing "available well databases" and "historical sources of information." Despite request the Department has been unable to identify the required databases or historical sources. The regulation requires the submission of a questionnaire to surrounding landowners; the Department has not provided the questionnaire. The regulation requires monitoring of all surrounding wells. Despite request, the Department has not stated whether that requires the hiring of personnel to provide constant or periodic monitoring or whether the monitoring can be from a distance.

An important concern is whether the DEP will allow well completion if the operator finds reference to an old well on a historical map but cannot locate that old well in the field. In the experience of COGAC members historical maps are notoriously unreliable due to the fact that for over 125 years wells were drilled in Pennsylvania without permits and often without maps. Given that notorious inaccuracy it would be a costly forfeiture for the Department to disallow the

completion of a new well every time a historical map suggested the possibility of a nearby old well. Nevertheless, the regulation as written allows this forfeiture.

The complexity of the new permit (significant new paperwork and notices) is not supported by a rational goal or need. The type of data that would logically drive such a new permitting requirement is a significant number of communication events that were preventable had the well operator conducted a prudent search for old well bores. The Department has not provided that statement of need. In the experience of the COGAC members that need does not exist because of the very infrequent instances of communication and because of the very strong incentive each well operator has to diligently avoid a communication event.

This new permitting requirement is written in a sweeping and open-ended manner with the seeming assumption that only via the broadest possible regulation will the threat of communication be contained. That philosophy entirely overlooks the reality that there is already great incentive for the operator to avoid a communication event and that the operator must plug any old well bore that is discovered by communication.

2) Data does not support the AOR distance requirements: Under section 78.52a. the AOR obligations apply within 1000 feet of a new conventional gas well and 500 feet of a new conventional oil well. The RAF admits these distances are not supported by data, and the COGAC members find these distances do not comport with the data with which they are familiar.

A prime measure of communication data exists in the form of well spacing utilized by operators, in that the optimum spacing for property development is a distance that avoids communication between wells (so that drainage areas do not overlap) yet a distance that is not so great that areas between wells are left undrained.

It is the observation of the COGAC members that the distances set forth in the proposed regulation are too great relative to the actual communication distances reflected in the experience yielded in the drilling and operation of thousands of actual wells in Pennsylvania's conventional formations. That the proposed regulation utilizes distances too great is of no small moment; the excess distance translates to large excess areas. It requires significant time and money to gather data about and to monitor areas of review; excess areas are a significant waste.

For example, the difference in area between a radius of 200 feet (2.8 acres) and 500 feet (18 acres) is over 15 acres. COGAC members believe that a thorough review of data for Pennsylvania oil wells will show that the actual area of concern for oil wells is at or near the lower figure. Doubtless the proposed area of review contains more acres of waste than of useful area. Data for gas wells will show a similar excess area.

However, data is not open for discussion because the DEP did not rely upon data. Had the DEP utilized data the RRA would have required the DEP to carry the burden of proof to show that the data is sufficient to support the requirements imposed by the proposed regulation. This lack of data is a fundamental failing that violates the process by which regulations are properly crafted

under the RRA. The result of that failing is a regulation that contains unnecessary costs and which contains requirements not supported by any actual need.

3) Data does not support the requirement to monitor Active and Plugged Wells: The regulation as originally promulgated pertained only to abandoned and orphaned wells. In later versions the regulation was expanded to include Active and Plugged wells. COGAC members have not encountered any communication concerns with Active and Plugged wells nor are they aware or any such concerns befalling other operators.

The need for such addition is unknown to the COGAC members and accordingly they object to what they regard as an unnecessary component of the regulation.

4) The regulation can require an operator to trespass: When existing wells are on a neighboring parcel, a conventional operator will have to make at least two trips to that adjacent parcel, one to gather "surface evidence" as to the neighboring wells before submitting the Monitoring Plan (section 78.52a(d)(6)), and one to monitor the adjacent well (section 78.52a(d)(3)) during hydrofracture activities. There is no legislative authority to either allow such trespass or to protect or define the rights of the trespassing party or the adjacent property owner who is subject to the trespass.

5) The regulation was promulgated without a consideration of costs: The DEP's 2013 Regulatory Analysis attributes $0 of cost to the implementation of this regulation. At the October 29, 2015 COGAC meeting the issue was raised that the many requirements of the regulation will entail significant cost; however DEP has yet to provide an estimate of the costs of the several steps or to engage in a discussion with COGAC about those costs. The several steps include the following:

a. Perform the required historical research (some DEP staff have suggested that a required element will be research at one or more libraries or museums);
b. Research identity and contact information for surface owners of all properties within radius;
c. Send questionnaire by certified mail to all surface owners;
d. Process questionnaire results;
e. Review DEP database;
f. Create required plat;
g. Perform field examination of all area within the radius for evidence of wells for evidence of wells;
h. Perform required examination of all wells in radius area for surface evidence of failed integrity (COGAC members do not understand what this requirement will entail);
i. Researching the depth of identified wells;
j. Gather GPS data for wells identified in field;
k. Calculate GPS data for wells identified on any maps;

l. Develop monitoring methods for identified wells, including visual monitoring under accompanying section 78.73;
m. Provide thirty days advance notice to adjacent operators under accompanying section 78.73; and
n. Submit the monitoring plan at least 30 days prior to the commencement of completion of the well.

It is self-evident that the cost of these many measures is far greater than $0. It is also evident that the regulation has not been crafted in accordance with the RRA because none of the required cost items were considered. It is too late to insert cost as an afterthought. Under the RRA costs are to be estimated when the proposed regulation is first published so that comment can be considered on whether the costs have been properly accounted for and how the costs balance the need for the regulation and the impact upon optimal development of oil and gas.

COGAC believes that cost is a key item of consideration in Area of Review and that if cost had been balanced as against the relative need for such broad regulatory provisions and their negative impact on conventional oil and gas development, the final regulation would have involved much less documentation, less area of review, and that the burdens would have been much more articulately defined. Only when cost is introduced at the beginning of the process and the regulation commented upon with the benefit of that cost analysis, will the rule be ready for advancement in final form.

6) The regulation was promulgated without consideration of alternatives for small business: Most of the conventional operators completing conventional wells are small businesses as that term is used in the RRA. Section 12.1 of the RRA requires DEP to conduct a regulatory flexibility analysis in which it must consider methods that would accomplish the objectives of the applicable statutes while minimizing adverse impacts on small businesses. The DEP did not do this.

Certainly, however, there are flexible options to discuss. A key discussion point is the recognition that communication with an old well results in a serious financial loss to the operator. The loss will always include poor performance of the well being stimulated and may also include the costs of cleanup. That communication with an old hole spells financial disaster, particularly to small business owners who may have "all the eggs" in the basket of one or a handful of wells, means there is already considerable incentive for the small business operator to prudently identify communication risks and that the costs of preparing yet another report, gathering new GPS data for adjacent wells, and submitting a monitoring plan 30 days in advance are not sensible.

Indeed, a prudent operator is already doing the following things:

a. Making a reasonable attempt to identify and be aware of the location of all active, inactive and orphan wells within a radius equivalent to the well spacing utilized in that area;

b. Making a field examination for orphan or abandoned wells that is limited to a "reasonable" standard and that entails neighboring property only when permission can "reasonably" be gained without compensation.
c. Consideration of fracture geometry when planning new wells.

Another flexible option is to rely upon the pressure change that is observed at the hydrofracture pumps if a communication with an old hole is experienced. Indeed, language about that pressure change was added by the DEP in the 2015 rewriting of the proposed section 78.73. That new language recognizes treatment pressure changes as indicative of abnormal fracture propagation. This is indeed the most likely evidence of a communication problem. Upon encountering such change, the operator should cease stimulation and investigate each of the inactive, orphan and abandoned wells that the operator previously familiarized himself with.

An alternatives analysis would test whether the above steps would be a meaningful response to the risk of communication. An alternatives analysis would also test whether such suggested standards are sufficiently ascertainable by the operator, and enforceable by the DEP, so as to be realistically counted upon. COGAC believes the answer to both questions is yes.

An alternatives analysis would also test whether the submission of the reports, monitoring plan and other data called for in proposed section 78.52a. adds to the protection against communication and, if so, whether the substantial paperwork costs (both for the operator and the DEP) are worth the expenditure. COGAC believes the answer is no.

The above alternatives are but some feasible for small business. Yet the process now underway never included discussion of any alternative or an opportunity for the public to comment on such alternatives. These problems with the AOR are instructive as to why the rule should not be advanced.

§ 78.53 E&S and Stormwater

DEP would revise this section to list numerous manuals that may provide best management practices for erosion and sediment control and stormwater management. There is no need, however, to list or refer to manuals in the regulation, which already provides a reference to the mandatory obligations in Chapter 102 with which anyone conducting earth disturbance activities must comply. The first sentence thus provides all of the instruction necessary for this subsection; the second sentence is not only unnecessary but also creates the very real risk that DEP staff in regional offices will require rigid adherence to manuals that do not have the same legal authority as the regulations themselves. Operators and staff are well aware that manuals exist and may be useful. Elevating manuals to the status of regulations is legally improper and potentially limit the best practices that may be developed outside of the manuals and utilized with better efficiency and results.

§ 78.55 Site Specific PPC plans

This section has been discussed at COGAC meetings with the concern being expressed that a PPC plan will have to be placed at each of the over 100,000 conventional well sites in Pennsylvania and then thereafter maintained. All of this would be at great expense.

The DEP has stated that it is not intended that the regulation require PPC plans at each well site. Nevertheless, the DEP has not squarely addressed the fact that the regulation, as written, clearly requires a PPC plan at each well site, nor has the DEP made the requested change to remove the references that require the PPC plan at each well site.

The proposed language requires a "site specific" plan that meets the requirements in 25 Pa. Code 91.34 and 102.5(l). Section 91.34 applies to locations where pollutants are both "produced" and "stored." Section 102.5(l) applies to oil and gas activities, which include pipelines and processing. Accordingly COGAC members have observed that oil and produced water are regarded as "pollutants", that oil and produced water are "produced" at the well site, and that, therefore, a PPC plan is required at each well site. COGAC members do not believe the regulation as written allows for any other reading.

Under current practice, conventional operators frequently cluster wells with fluids gathered at one location. In this circumstance operators employ a single PPC plan that meets the requirements of existing section 78.55. Among other items, the plan lists the company contacts and internal spill cleanup resources and lists the outside contractors who might be called upon to assist in the response. This information is and has been a sufficient guide on how to handle materials and respond to releases or threatened releases because (i) conventional well and tank sites are small, (ii) the volume of material that could be released from an accidental spill is small, and (iii) there are fewer different materials on site at conventional versus unconventional operations to manage.

The site specific proposal will have a serious debilitating effect on the conventional industry. While individual conventional sites are very small and treat with very small quantities of materials, conventional sites are numerous. Including wells and tanks, the estimated number is 200,000. (This number excludes pipelines—COGAC cannot discern how or where PPC plans would be maintained on pipelines.) PGCC, an industry trade group, has estimated that to achieve initial compliance, the cost will range between $33 million and $100 million. Thereafter, the annual burden of keeping 200,000 paper plans both legible and updated will cost approximately $25 million per year.

COGAC is unaware of the DEP ever stating the need for the additional burden of site specific PPC plans. Given the large number of conventional wells and tanks, the cost is extraordinary, but the benefit would be small—if not nonexistent. In addition to containing small amounts of materials, conventional well and tank locations are highly similar. There does not exist unique chemicals or other pollutants, from site to site, which would render a site specific plan useful in the conventional well context. Instead, the critical information of who to contact and where to locate cleanup resources is already contained in the generic plans.

Further the DEP never engaged in any discussion or analysis of the costs of compliance with COGAC.

Finally the DEP did not consider alternatives for small businesses under the RRA. The COGAC members believe that this proposed regulatory change is a prime fit for such discussion since the generic plans presently in use substantively meet the objectives of the planning requirement and because the cost of the new burden is so dramatically out of balance with the benefit (if any) that might be achieved. The RRA suggests exemption from requirement for small business; COGAC members believe exemption is appropriate. Alternatively COGAC observes that with the application of technology, one or more alternatives might be conceived which do away with paper for operators who utilize computers and thus offer the opportunity for information sharing with cost savings. But without the DEP beginning the process with its statement of need for change, and without there having been a dialogue of how to adapt the regulatory culture to the needs of small business, it is quite impossible to comment on alternatives that meet the DEP's goals—whatever those goals might be in this instance of change.

§ 78.56 Temporary Storage

The previously proposed requirement that the interior slopes of a pit with a footprint of 1,000 square feet or more have a slope not steeper than 2 horizontal and 1 vertical was discussed over the course of the three COGAC meetings, culminating in appropriate changes being made at the October 29, 2015 meeting. COGAC believes this is an example of how the Department, public and COGAC can work together to develop logical rules that serve the balance contemplated by the legislature. It will require many more COGAC meetings in order to address all of the sections in this manner; however, the COGAC members are prepared to invest the necessary time to fulfill that function.

Miscellaneous concerns remain as follows: Section 78.56(a)(8)(ii) states that a list of approved liners shall be maintained on the Department's website however, no such list exists or is available to the public.

Second, the Department has previously stated that approved 20 mil liners are and will remain on the list. Due to the absence of this list, COGAC is unable to confirm the statement and provide meaningful comments. Additionally, without the list said to contain approved 20 mil liners, COGAC fears the possibility that all pits will be required to be lined with 30 mil liners.

§ 78.57 Control, storage and disposal of production fluids

DEP is proposing to impose the corrosion control requirements upon ALL new, refurbished or replaced tanks that store "brines, crude oil, drilling or frac fluids, and similar substances," which far exceeds its statutory authority. Act 13 of 2012 specifically addresses corrosion control requirements at section 3218.4; therein, the legislature provides that tanks "must comply with the applicable corrosion control requirements in the storage tank regulations" (emphasis added). Clearly those regulations do not impose the corrosion control requirements upon aboveground tanks that store "brines, crude oil, drilling or frac fluids and similar substances" and, therefore, proposed section 78.57(f) may not create a corrosion control burden more stringent than the legislature authorized in Act 13.

Imposing corrosion control provisions contained at 245.531 through 245.534 on all aboveground tanks would require very significant and expensive measures certainly never presented by DEP or quantified financially in its RAF. These expensive measures include, for example, cathodic protection – a measure not currently used at virtually any conventional oil and gas facility in Pennsylvania.

Similarly, DEP failed to engage, in any way, in accommodations or considerations for small businesses. Almost all conventional operators are small businesses, as that term is employed in the RRA. Section 12.1 of the RRA requires DEP to conduct a regulatory flexibility analysis in which it must consider methods that would accomplish the objectives of the applicable statutes while minimizing adverse impacts on small businesses. That none of the conventional oil and gas tanks in Pennsylvania conform to measures such as cathodic protection speaks loudly to the need for consideration of the alternatives contemplated under the RRA. The DEP has entirely failed to conduct the required alternatives analysis.

Without legislative amendment or express direction, the Department cannot remove exemptions for existing tanks and has failed to provide any data, analysis or justification for this revision.

Additionally, 78.57(c) requires secondary containment for all new, replaced, or refurbished tanks that contain brine and other fluids produced during operation of the well. Conversely, language already contained in 78.64(a) states that secondary containment is not required for tanks with a combined capacity of less than 1,320 gallons to contain oil or condensate produced from a well. COGAC contends that this provision should also apply to tanks with a combined capacity of less than 1,320 gallons used to contain brine. As it is currently written, 78.57 (c) does not have this capacity threshold provision.

DEP has remarked that tanks used to store waste may be treated differently than tanks containing product. COGAC disagrees with this statement. In the event of a spill, the cost of remediation will in most cases far exceed the value of any product contained in the tank; therefore great incentive exists for operators to properly maintain their tanks. Second, does this contradictory language suggest that brine is more toxic than oil or condensate?

Especially in the context of conventional gas wells (where brine tanks are usually located at the well site) brine production declines as wells reach maturity, a small tank is used. Therefore the exemption in this case has important financial significance. Because the cost of retrofitting older low producing wells with expensive double wall tanks or dikes will be an economic burden, and because the risk is low in these low-volume situations, the exemption should be maintained. This is particularly true in the conventional context where nearly all operators are small businesses; this is precisely the type of alternative that is contemplated under the RRA for small businesses.

Overall this section of the Final Rule is defective as follows:

1) Failure to Demonstrate Need: A leaking storage tank causes financial loss in the forms of lost product and cleanup liability. It behooves a prudent operator to inspect storage

facilities regularly, and such inspections are the norm without the burden of yet another report to be prepared and submitted to the State.

To the extent one acknowledges the form is not necessary from the prudent operator, but is intended to enforce inspections by non-prudent operators, COGAC questions the logic of the premise that a non-prudent operator will conduct the inspection that underpins the completion of the form.

The DEP has not provided any data that would support what COGAC regards as the erroneous proposition that the completion of a form will prevent tank breaches. The DEP has access to all records of tank leakage in Pennsylvania and can analyze what leakage was preventable by inspection and submission of a form. However, the DEP has not taken this requisite step. The imposition of quarterly inspections of over 100,000 tanks, and the subsequent generation of over a million new forms per year, should not be imposed without that requisite step having been fulfilled.

2) Failure of Statutory Authority: In 2012, Act 13 added a limited obligation related to tanks that cannot be interpreted to remove existing exemptions from the tank program or to authorize the Department to create new inspection obligations for tanks in Chapter 78. The legislature recently considered this precise question and adopted the measures it determined to be necessary for oil and gas operations. COGAC believes the Department has exceeded its legal authority in attempting to create a new inspection program for tanks used for the control, storage or disposal of production fluids.

3) Failure to Consider Costs: The DEP's 2013 Regulatory Analysis obviously did not address the costs of the quarterly inspection obligation added in 2015 Final Rule. And to the extent the proposed regulations are to be read as imposing corrosion control upon all new, refurbished or replaced aboveground tanks and all buried tanks regardless of size or use, the DEP's 2013 Regulatory Analysis did not address such costs.

The DEP has not provided any cost estimate for the compliance with these new burdens contained in the Final Rule. There has not been time for COGAC to conduct a cost analyses nor has the DEP established any format with COGAC that allows for discussion of cost. All that can be said is that operating costs will be significantly increased by virtue of the new proposed obligations. Given that the obligations necessarily involve over a million reports annually, it is safe to conclude that the cost will involve millions of dollars.

What is ascertainable, however, is that the DEP did not perform the financial analysis required by law. This is a fundamental procedural failure that prevents COGAC from commenting meaningfully and, most important, prevents an analysis of whether the proposed regulations meet the dictates of the RRA.

4) Failure to Account for Small Business: As noted, almost all of the conventional operators are small businesses; the RRA requires DEP to conduct a regulatory flexibility analysis.

The DEP has not conducted that analysis, and it is impossible for COGAC to meaningfully comment about potential alternatives inasmuch as DEP has failed to state why there is a need to introduce new obligations in the Final Rule. Since we do not have a statement as to what goal(s) the DEP is seeking to achieve via change, it is impossible to discuss alternatives which might achieve that goal or goals.

§ 78.59a (impoundment embankments) and § 78.59b (freshwater impoundments)

In the Final Rule, the DEP significantly expanded the requirements for freshwater impoundments beyond the requirements introduced in the 2013 Proposal. Comment has been made at a COGAC meeting that the proposed regulation is out of touch with the nature of freshwater usage in the conventional context. Indeed, many new conventional wells use only a few hundred barrels of freshwater. That freshwater is drawn from either streams or impoundments. The "impoundments" are nothing more than small ponds, indistinguishable from what one knows as a small "farm pond." A single pond might serve a hundred or more new wells over the span of many years, and the frequency and impact of the ponds is so small that the types of items regulated in the 2013 Proposal are strangely ill-fitting. The Final Rule compounds that problem in that the regulatory requirements are heightened. As with the 2013 Proposal, there is no statement of need for the new regulations, the requirements are out of touch with the actual nature of the ponds (like any pond, the impoundments are aesthetically pleasing and serve the needs of wildlife), and the regulatory cost is not analyzed by the DEP.

In addition, COGAC objects to the Department's attempt to expand the scope of Chapter 78 beyond wells and well sites. Oil and gas operators are subject to numerous environmental statutes, including the Pennsylvania Clean Streams Law, the Dam Safety Act, the Air Pollution and Control Act, the Solid Waste Management Act, as well as applicable federal laws and regulations. Chapter 32 of Act 13 applies to wells and well sites. Chapter 78 should be accordingly limited in scope to avoid the application of unnecessary and duplicative requirements on this particular industry when other industries are not similarly regulated. Accordingly, freshwater impoundments used for oil and gas operations are sufficiently regulated under existing law and should not be subject to additional regulation through the oil and gas program. Absent compelling justification, which the Department has not provided, these sections must be deleted from the final rule.

§ 78.60 - § 78.63 Discharge and Disposal

The Department proposes to use the term "regulated substances" throughout these sections, which is overly broad and lacking in clarity necessary for regulatory guidance to the agency and the regulated community. "Regulated substances" as defined would include sediment or other natural constituents of tophole water or soil, which would effectively prohibit the discharge of tophole water and the disposal of uncontaminated drill cuttings, entirely defeating the purposes of subsections 78.60 and 78.61. The term should be removed from 78.60(b) (1), 78.61(a)(2), 78.61(b)(2), and elsewhere in these sections to avoid absurd results and unintended consequences.

The Department has also added a new prohibition to the discharge of tophole water or disposal of drill cuttings "within the floodplain," which lacks both clarity and justification. Floodplains may extend thousands of feet beyond water courses in flat areas of the Commonwealth, which could improperly prohibit typical practices of conventional oil and gas operations unnecessarily. Without an explanation of why the Department is suggesting this revision, however, COGAC cannot provide a fully informed comment on the proposal.

The Department has also added new notice requirements. DEP is an agency tasked only with the enforcement of environmental laws and regulations, and should not require or dictate landowner/operator communications beyond any provisions expressly provided in Act 13 or other enabling statutes.

The overall import of both the 2013 Proposal and the new burdens in the Final Rule is to treat these very small quantity materials as regulated substances without supporting data, statement of need, cost analysis or examination of alternatives.

§ 78.65 Site Restoration

COGAC objects to the new obligation to restore conventional well sites to original contours. The obligation is stated expressly in section 78.65 and incorporated in section 78.65's obligation to return sites to "approximate original condition," which in the definitions is defined as "reclamation of the land affected to preconstruction contours…"

This is a significant departure both from existing regulations as well as from the initial version of the revised regulations first published in 2013. Like other regulatory provisions discussed above this new and significant change is not supported by the necessary statement of need, the analysis of costs and the consideration of alternatives for small business.

COGAC members are very interested in participating in the discussion of need because the members firmly believe the conditions applicable in the conventional oil and gas industry do not show a need for this significant change. Indeed, in the context of the conventional industry, and its history, this change is likely to impart harm.

Most of Pennsylvania's conventional well sites are decades old. Many are over 100 years old. Immediately after the sites were constructed trees began to grow on the modified contours. Today many of those trees are now timber! Thus even if one could guess at what the original contour looked like the return to preconstruction or original contours would involve the removal of many trees. And for what end?

Pennsylvania's conventional well sites are small. Even at original construction they are a small percentage of an acre. And after original drilling and completion of the well the only necessary area remaining are spaces sufficient to hold the collection tank and to park a service rig (about the size of a medium dump truck) in front of the well. And in oil areas (mostly northwestern Pennsylvania) the site does not even require a collection tank (because the oil is usually collectively gathered at one well location). Hopefully the reader can picture the many conventional wells visible along Pennsylvania's highways where the surrounding field crops

crowd next to the pump jack or where the surrounding trees virtually hide the well from view. Because the conventional sites have such small footprint, the necessary tree removal, soil moving and installation of E&S facilities, would be a disturbance far outweighing any benefit of contour change.

Indeed, at the COGAC meeting of October 29, 2015 a COGAC non-voting member expressed the very concern, that required site work creates unwanted surface disturbance.

COGAC believes that the standards of "original" and "preconstruction contours" were crafted with unconventional well sites in mind—which unconventional sites are five acres or more in size, and that because the approach to the new regulations has not properly segregated conventional and unconventional well activities, the conventional wells have been inadvertently swept into the site restoration standard of original and preconstruction contours.

COGAC firmly believes that separate needs analysis for conventional oil and gas regulations would reveal the lack of necessity of this provision and that until such separate needs analysis is performed the ruled for conventional oil and gas operations are not ready to be advanced.

A second new obligation in the Final Rule is the duty to comply with 25 Pa. Code section 102.8(g) (relating to stormwater analysis and construction). Among other things, section 102.8 requires analysis by a certified professional as well as the installation of post-construction stormwater structures. Historically, oil and gas activities have been exempt from this complicated, costly and unnecessary stormwater requirement. Section 102.8(n) creates an alternative approach for small earth disturbance activities such as conventional oil and gas operations.

The Final Rule elevates the burden for both plugging activities and for the development of all new conventional well sites. The post-plugging requirement is found at section 78.65(a)(2). The requirement as to new conventional well sites is found in the new requirements regarding the restoration plan. While that planning component is currently carried out in the context of the E&S plan, the Final Rule requires a much more complex plan that demonstrates a return to preconstruction runoff rate, volume and quantity in accordance with section 102.8(g). Moreover, areas not restored, presumably such as roads and well site operation areas, are separately addressed and are required to comply with all provisions of chapter 102—which provisions, of course, include section 102.8(g). In fact, the 2015 version specifically renders the exception under section 102.8(n) inapplicable.

The burden under this new regulatory provision is severe. PGCC obtained estimates from professional firms providing the services necessary to comply with section 102.8(g). The estimates of the cost to comply ranged from $22,000 to $84,000 per new conventional well. Even at commodity prices two to three times as high as today such new costs would consume all the profit yielded in a new conventional well.

At the COGAC meeting of October 29, 2015, this topic of concern was raised by COGAC members and DEP stated that it was not the intention to change current practice and that it was intended conventional oil and gas operations would not have to comply with the elevated

stormwater requirements. Two proposed changes in language were discussed and DEP agreed to reflect upon the language necessary to make the rule clear. However, the Final Rule was not modified.

If the Final Rule is retained as is COGAC would, of course, state the objections that the significant and very costly change is not supported by a needs analysis, discussion of costs, or consideration of alternatives. However, based on DEP statements that the rule would be changed COGAC expects this is an oversight. In either event the rule is not ready to be advanced for approval.

§ 78.66 Spills and Releases

In September 2013, DEP finalized a policy addressing spills on oil and gas well sites, including access roads. That document created a policy unique to the oil and gas industry, but could not impose new binding obligations beyond existing statutes and regulations. The policy includes references to *mandatory* provisions outside the policy and provides *recommendations* for reporting and remediation steps that would help operators "clearly protect themselves" from potential liability. See DEP's Comment and Response Document, September 2013, pp. 6, 9, 10, and 11.[5] The stated purpose of the policy is to increase uniformity of handling spills on oil and gas well sites.

Relevant and applicable law, outside the policy, includes the Pennsylvania Clean Streams Law, 25 Pa. Code Chapter 91.33, 25 Pa. Code 78.66, and Pennsylvania's Land Recycling and Reclamation Act, Act 2. Pennsylvania Clean Streams Law, Act 2, and the reporting obligations under Section 91.33 fully provide for the reporting and cleanup of typical accidental spills that occur on conventional oil and gas well sites, which may include brine or oil spills. Under the existing provisions of section 78.66, conventional oil and gas operators are further required to report releases of brine, depending on the quantity spilled and the total dissolved solids in the brine. This provision addresses what may be unique to oil and gas operations, namely brine spills.

DEP has failed to state any need to revise section 78.66, and COGAC is unaware of any such need. Neither brine nor oil presents a hazardous situation or significant threat to the environment or public health or safety in the course of typical conventional oil and gas operations that would justify revision. If conventional oil and gas operations present remediation challenges under existing law, DEP should work to address those concerns with its existing authority and its vast arsenal of enforcement tools. COGAC is unaware of any spills on conventional oil and gas operations that cannot be addressed under current law.

In fact, the situation of oil spills presents an excellent opportunity to develop small business alternatives as contemplated under the RRA. Spilled oil can and has been successfully

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[5] Addressing spills and releases at oil and gas well sites or access roads (800-5000-001) Final technical guidance document; Comment and response document. Available at http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-96768/Final%20Spill%20Policy%20Comment%20%20Response%20%282013-09-18%29.pdf.

remediated by measures far less intrusive and costly than the inflexible requirements spelled out in Act 2. For example, oil is lighter than water; a highly successful non-intrusive spill methodology is to contain the spill area by earthen berm, introduce freshwater, and "float" the oil so that it can be collected by vacuum truck. Another methodology discussed in PGCC's comments is bioremediation, a method specifically contemplated by other regulatory agencies. DEP has failed entirely to discuss any such alternatives.

Moreover, section 78.66 would increase the reporting and cleanup obligations beyond the 2013 Proposal through the elimination of the alternate method for spill cleanups that was developed under the 2013 Spill Policy. The Final Rule would not only require full compliance with Act 2 for all spills, but would require operators to demonstrate Act 2 attainment through specific procedures with restrictive deadlines that are not found in Act 2. These additional requirements are virtually identical to the procedural requirements under the Storage Tank and Spill Prevention Act ("Tank Act"), from which oil and gas operations are generally exempt. By imposing Tank Act remediation procedures on spills of brines and oil, the proposed § 78.66 effectively eliminates the legislature's distinction between tanks used for oil and gas operations and regulated tanks storing gasoline or hazardous substances.

The Final Rule would significantly broaden reporting obligations and require greater documentation, increased sampling, and more stringent restoration standards than are necessary or appropriate for conventional operations. These additional requirements would substantially increase the time and costs of addressing small spills on well sites, with little meaningful environmental benefit. Existing law provides standards for cleanups and enforcement authority where needed to protect public health, safety and the environment. Brine and oil accidental spills, which have occurred in the past and will occur in the future, can and should be addressed under existing law and policy.

All of the foregoing changes are proposed without the DEP having engaged in the proper procedural steps required under the RRA. As noted, the DEP failed to engage in any alternatives analysis. Similarly, the RRA requires a statement of needs, a consideration of the effectiveness of the current regulations, and what is, in effect, a cost-benefit analysis of the proposed regulation relative to the harm being guarded against. These procedural details are discussed earlier and not repeated here. However, it is instructive to discuss the type of data that a proper cost-benefit analysis might have yielded.

The brine water produced in Pennsylvania's conventional operations is trapped from ancient oceans. It is similar to brine manufactured by PennDOT for spreading on roads in winter. It weighs about 9 pounds per gallon. The proposed regulations require reporting for 5 gallons or more and would require Act 2 cleanup for 42 gallons or more.

Under EPA guidelines, there are over 700 hazardous materials that have a higher reportable quantity than Pennsylvania's produced brine. For example, Ammonia, Hydrogen Sulfide, and Phosphine are all toxic and may be fatal if inhaled. In fact, the latter two materials require self-contained breathing apparatus for cleanup. The reportable spill quantity for all three is 100 pounds.

A data-driven discussion would allow the relative dangers of these materials and brine to be quantified. A data-driven discussion would also account for the amount of sodium and calcium chloride contained in brine water. Some brine is nearly fresh water. For the majority of the conventional industry's existence, it was the practice to drain all brine water upon the ground, and since 1859 billions of gallons of brine were so deposited. Where that water contained high amounts of sodium and calcium chloride, there were observable impacts including vegetation kills. That was not the case where the water was virtually fresh and, in all circumstances, the danger of brine is qualitatively different than materials such as Ammonia, Hydrogen Sulfide and Phosphine.

But by preparing regulations in a process that is not data driven, the DEP has arrived at requirements that involve extraordinary new cost (Act 2 cleanup mandates), without any measurement of the benefit yielded by that extraordinary cost. Similarly, the DEP has arrived at the mandate for such extraordinary costs without the necessary analysis of alternatives for small business or the consideration of whether the extraordinary cost is in balance with the statutory mandate of "optimal" development of the Commonwealth's oil and gas resources. These are fatal oversights that require the current proposal to be abandoned in favor of compliance with the rigor expected of agencies adopting new burdensome and highly expensive regulations.

And finally, the requirement for conventional oil and gas operators to enter into and follow the voluntary provisions of Act 2 violates the intent of this valuable and hugely successful program and thereby undermining public confidence in DEP to abide by the promises made at the time of the implementation of Act 2.

§ 78.67 Borrow Pits

The Department has added some language to comport with Section 3273.1 of Act 13, which provides an exemption from obligations under the Noncoal Surface Mining Conservation and Reclamation Act (SMCRA) or regulations under that statute, where a borrow area is used solely for the purpose of oil and gas well development. The Department has added, however, a requirement that areas subject to this exemption comply with standards in Chapter 77, adopted pursuant to the Noncoal SMCRA. This is contrary to the exemption provided in Act 13, which cannot be altered by the Department or the EQB. Without legislative amendment, this expansion is beyond the scope of legal authority.

In addition, in the Final Rule, DEP has added the requirement that such areas be "included in any permit required under Chapter 102." The meaning and purpose of this statement is unclear. The exemption in Act 13 states that the obligations for borrow areas are satisfied when the well is permitted and the owner or operator of the well meets its bonding obligations. There is no reference to additional permits under Chapter 102 needed to satisfy the exemption. If the Department means that borrow pits are not exempt from the Pennsylvania Clean Streams Law or that permits under Chapter 102 may be needed for certain borrow areas, the language must be revised to state its intent more clearly.

§ 78.121 Annual Reporting

The Final Rule adds to the annual production report the information of where the waste was managed. Conventional operators retain and can provide such information when necessary. However, the complication of adding that information to the report comes in the context of two dozen other new forms and electronic reporting. The cumulative impact of the new reporting requirements is in direct conflict with the intent expressed by the legislature in the RRA. The RRA requires the regulatory body to provide "an explanation of measures which have been taken to minimize... [the] recordkeeping or other paperwork, including copies of forms or reports which will be required for implementation." No such explanation or measures have been proffered by the DEP.

As to small businesses, the regulatory agency is directed to take the additional step of conducting a regulatory flexibility analysis wherein it specifically considers "the consolidation or simplification of compliance or reporting requirements for small businesses." Again, no such analysis was performed by the DEP as to the new requirement. Without such analyses, the requirement should be stricken.

Electronic Reporting and Forms

COGAC notes that electronic reporting can be burdensome and unnecessary for small businesses in this industry. Many operators own just one or a few wells; in many ways the conventional industry is similar to small farming operations. Many of these operators do not own or know how to operate a computer.

COGAC and other commenters, observing this reality, have requested relief form the electronic requirement. The Department has not provided that relief; moreover the proposed regulations expand the number of new forms and electronic reporting obligations in the Draft Final Rule. Under the Regulatory Review Act, the Department was to provide ALL forms to the EQB and IRRC with submission of the proposed rulemaking in 2013. The Department has failed to comply with the express requirements of the statute to submit such forms, has failed to accommodate small businesses with reasonable alternatives, and has expanded the number of NEW forms to more than two dozen.

The legislature has expressed the intention that the regulatory process be "reformed" to enhance efficiency for all businesses, with special considerations for small businesses. COGAC understands the difficulty with and costs involved in grappling with the forms and wishes to see the "reform" actualized in the new rules. Since the forms are not available it is impossible to comment on their content. However, the sheer number of forms points to the DEP's failure to achieve the substantive reform desired by the legislature.

The new reporting requirements have not been properly explained by the DEP and no alternatives have been examined for the small businesses that will be most adversely affected by the substantial new burdens.

By: _____

Date: 01/04/2016

EXHIBIT A

RESOLUTION OF THE
PENNSYLVANIA CONVENTIONAL OIL AND GAS ADVISORY COMMITTEE

Proposed Amendments to 25 Pa. Code Chapter 78 Environmental Protection Performance Standards at Oil and Gas Well Sites Re; Pa. Code Chapter 78 Subchapter C

WHEREAS, the bylaws of the Conventional Oil and Gas Advisory Committee (COGAC) charge it with the "review and comment on all...regulations" promulgated under the 2012 Oil and Gas Act prior to submission of the regulations to the Environmental Quality Board; and

WHEREAS, the COGAC desires to conduct its review consistent with legislative intent of the statutory authority for such regulations; and

WHEREAS, the COGAC has examined several laws and the legislative intent contained in those laws, including:

A) the 2012 Oil and Gas Act, which among other expressions of intent, includes "the optimal development of oil and gas resources of this Commonwealth consistent with protection of the health, safety, environment and property of Pennsylvania citizens;" and
B) the Act of June 25, 1982 (P.L.633, No.181), known as the Regulatory Review Act (RRA), which among other matters contains an expression of intent "to improve State rulemaking (by making available) more flexible regulatory approaches for small businesses."

WHEREAS, to act consistently with legislative intent, the COGAC requires information described in the RRA, such as: 1) the expected costs of proposed regulations to enable review and comment upon whether optimal development of oil and gas is served, 2) the need for proposed regulations to enable review and comment upon the protection of natural resource in balance with optimal development of oil and gas, and 3) the data underlying standards to enable review and comment upon alternatives for small businesses, among other necessary information; and;

WHEREAS, several factors have prevented COGAC from receiving or obtaining the above-described necessary information; and

WHEREAS, the COGAC finds that one of those factors is the Department of Environmental Protection's (DEP) inability (despite request) to provide information, which inability includes the following:

A) The DEP has not provided any data, let alone "acceptable data" as that term is used in the RRA. This inability has interfered with the COGAC's ability to review and comment upon the many standards contained in the proposed regulations.

B) The DEP has not provided documents or evidence that describe the need for the sweeping revisions contained in the proposed regulations. This inability has interfered with the COGAC's ability to understand why each revision is being proposed and, in turn, to assess or comment on matters identified by the Legislature, such as whether each revision serves to protect an environmental resource not protected under current regulations, whether the proposed regulations as a whole serve optimal oil and gas development, and so forth.

C) The DEP has not provided financial analysis data for the vast majority of the regulations proposed for conventional oil and gas operations. For example, regulatory sections likely generating new costs and financial impact, such as Public Resources (78.15), Area of Review (78.52a), Site Specific PPC Planning (78.55), Site Restoration (78.65), Water Supply (78.51), Spill Remediation (78.66) and others were either not analyzed by DEP or were attributed no cost by DEP. Moreover, the costs that the DEP did attribute applied only to new well development and ignored any costs associated with bringing into compliance existing conventional oil and gas wells. Given the existence of approximately 100,000 conventional oil and gas wells, the failure to perform a financial analysis for the existing wells leaves a large void in the information the COGAC would need to perform its review and comment. Similarly, the costs the DEP did attribute applied only to initial compliance; the DEP did no financial analysis concerning the costs of maintaining conventional oil and gas wells in compliance with the proposed regulations. An industry group has commented that, based upon its examination, the proposed regulations would impose costs 100 or more times greater than that estimated by the DEP and that the actual costs would far exceed the gross revenues of the conventional oil and gas industry. A thorough understanding of the costs is key to the balancing of interests contemplated in law, and without that financial information the COGAC finds it impossible to carry out the review and comment duties charged to it in its bylaws.

D) The DEP has not provided a regulatory flexibility analysis that considers methods of reducing the impact the proposed regulation will have upon small businesses. The experience or expertise of the COGAC members enables the COGAC members to envision numerous potential alternatives including reduction of paperwork and notices, submission of written rather than electronic forms, different standards, use of techniques allowed either under current regulations or federal law but not permitted under the proposed regulations, exemption from certain regulations, and the like. However, without the above cited information concerning data and the need for revised regulations, it has not been possible to responsibly comment on whether any alternatives meet a need or comport with data, inasmuch as data and needs have not been available to COGAC. Similarly, for the majority of the proposed regulations it is not possible to comment upon whether alternatives would reduce negative financial impact inasmuch as financial data provided by DEP is, for the most part, not available.

WHEREAS, the COGAC finds that another factor preventing its review of necessary information is the DEP's inability (despite request) to provide the forms called for under the proposed regulations. Examples of the several new forms include the form required to identify public resources under section 78.15, the form of questionnaire to landowners required under section 78.52, the form for well monitoring required under section 78.52 and 78.73, and others. Although Section 5(a)(5) of the RRA requires DEP to submit copies of forms required for implementation on the same date as submission of the proposed rule, the DEP has advised the COGAC that the forms do not exist. It is therefore impossible for the COGAC to review and comment on the required forms.

WHEREAS, in addition to the failure of information, the COGAC finds that its ability to review and comment has been impeded by the breadth of changes and lack of time. The COGAC finds the following matters to have had significant impact:

A) The EQB and DEP have chosen to repeatedly modify an already very complex and broad set of proposed regulations. The ANFR published in April 2015 added many new provisions as did the August 2015 redline version. The October 2015 version made yet additional changes which COGAC has not yet had time to even perfunctorily examine.

B) COGAC was not formed until March 2015 and the initial meetings of COGAC were consumed not with thorough review and comment on the Chapter 78 regulations, but rather with the bylaws of COGAC and other housekeeping matters.

C) Under the COGAC bylaws, the DEP is charged with "framing the issues" brought before the COGAC, and in that framing the DEP has elected to utilize the lecture format, providing a presentation about the results of the most recent modifications to the regulations written by the DEP. Given the breadth of both the proposed regulations and the many changes made by the DEP in 2015, these presentations take many hours and consume all of the meeting time (not otherwise spent on housekeeping matters). Consequently the COGAC has not had time to inquire of the DEP about ambiguities in the proposed regulations, to discuss the impact of the regulations, to inquire about or discuss alternatives, or to otherwise bring to bear the experience and expertise of the COGAC members.

D) There are many ambiguities the COGAC would like to discuss with DEP before commenting upon the proposed regulations, including ambiguities generated by inconsistencies between what DEP has orally reported to members of the regulated community at meetings or elsewhere and the actual text of the proposed regulations, as well as ambiguities generated by the lack of information such as the lack of the required forms. Examples of these ambiguities include:

1) Area of Review (78.52a. and 78.73). What monitoring will be required? The proposed regulation requires that during new well

completion all plugged, abandoned, orphaned and active wells within either 500' or 1000' of the new well be monitored. Within 500' of a new conventional oil well there would normally be four to eight wells requiring monitoring under this new regulation. If full time monitoring is required then obviously many employees or contractors would have to be hired. Yet the DEP's RAF attributes $0 of cost to the implementation of this regulation. And the form for the required well monitoring plan has not been provided by the DEP.

2) Site Restoration (78.65). Is section 102.8(g) applicable to all new conventional wells (requiring certified professional, soil tests, permanent stormwater measures, and surface owner consent in deed)? The expansion of the site restoration requirements is, in great part, a result of changes proposed in the April 2015 ANFR and there are no explanatory or analysis documents published by the DEP that clarify the new requirements. One industry group solicited two engineering firms to provide cost estimates for conventional well operators to comply with the revised Site Restoration requirements (including the 102.8(g) requirements cited therein), and the estimates ranged from $22,000 to $84,000 per individual conventional well site, depending upon the site topography. Given that the average cost of a conventional oil well in this study area is currently slightly in excess of $100,000 this one new requirement would increase the cost of a new conventional oil well by 25% to 75%. Yet DEP employees have repeated orally stated to members of the regulated community, whom are represented by COGAC that industry cost estimates for compliance with the proposed regulations are overstated.

3) Site Specific PPC Plans (78.55). Where are individual PPC plans required? The proposed regulations incorporate the provisions of 25 Pa. Code 91.34 which require the supply of PPC plans at both well sites and tank storage locations. This would greatly amplify the current PPC plan practice of a PPC plan on site at individual leases or tank battery, but not at each well site. However, DEP employees have orally stated to members of the regulated community that the new regulation is not intended to change existing practice and that individual plans will not be required at each well site. Those oral statements are in conflict with the provisions of 25 Pa. Code 91.34.

WHEREAS, in addition to the failure of information and adequate time, COGAC has concern that the DEP has not complied with Act 126 of 2014, which requires the DEP to "promulgate proposed regulations under 58 Pa. C.S. (relating to oil and gas) or other laws of this Commonwealth relating to conventional oil and gas wells separately from proposed regulations relating to unconventional gas wells." As individuals familiar with the technology and methodologies utilized to find and

recover oil and gas, the COGAC members are well familiar with the significant differences between the conventional and unconventional oil and gas industries. The COGAC believes that the General Assembly adopted Act 126 to address the impropriety of regulating conventional and unconventional oil and gas operations as a single industry and that DEP's response of simply dividing the rule into separate subchapters in the middle of the current rulemaking process does not follow the statutory procedures for the promulgation of a separate rule for conventional oil and gas operations; and

WHEREAS, all of the COGAC members are experienced in the realm of conventional oil and gas operations are familiar with the current regulations pertaining thereto, and believe, based upon that experience, that: 1) the existing regulations are adequate and appropriate to both accomplish the protection of the environmental resources of the Commonwealth and allow for optimal development of oil and gas from conventional well operations, 2) the remarkably sweeping changes contained in the proposed regulations have not been explained or justified by data or need, and 3) the proposed changes are unnecessary and inappropriate.

NOW THEREFORE, IT IS RESOLVED, that the voting members of COGAC are in full agreement that relative to the proposed regulations:

1) The above recitals are incorporated as part of the conclusions of the COGAC;

2) That Act 126 of 2014 required that the process of formulating new regulations for Pennsylvania's conventional oil and gas industry should be restarted in its entirety:

3) That if the process for conventional oil and gas regulations is not restarted and this process is continued, that for COGAC to give meaningful review and comment the following procedures must be adopted as a minimum:
    a. That the process be suspended until such time as the following is provided by the DEP and/or the EQB:
        i. A corrected financial analysis that includes analysis of: 1) the regulatory sections not analyzed by the DEP, 2) the implantation costs for existing wells not analyzed by the DEP, 3) the costs of maintaining the proposed regulations not analyzed by the DEP;
        ii. the required forms;
        iii. a regulatory flexibility analysis for each regulatory section;
        iv. a statement of need detailing the inadequacies of the existing regulations for conventional oil and gas well operations; and
        v. data supporting any proposed new standards.
    b. That following the provision of such materials the COGAC be afforded the period of nine months to review and comment upon the proposed regulations with meetings scheduled once per month; and
    c. That at each such meeting the minimum time of two hours be allowed by DEP for the COGAC voting members to carry on dialogue with themselves and informed DEP staff for the purpose of discussing ambiguities, need, alternatives and the like.

EXHIBIT A

4) The COGAC members have not had adequate time to review and comment upon the proposed regulations;

5) The remarkably sweeping changes contained in the proposed regulations have not been justified by data or need, and that therefore, the proposed changes are unnecessary and inappropriate.

6) The DEP should not move the regulatory package to the EQB for the reasons stated above;

7) This Resolution shall be made part of the public record; and

8) A copy of this Resolution should be forwarded to the Pennsylvania Independent Regulatory Review Commission, the Pennsylvania House and Senate Environmental Resources and Energy Committees.

By: _____

Mark L. Cline

_____

_____

_____

DATE: 10/29/15

EXHIBIT B

The following changes were newly added in August 2015 and are cumulative, added to the revisions in prior versions of the proposed rule.

78.15 – Well Permit application requirements

- If the proposed limit of disturbance is within 100 feet of any wetland one acre or greater in size, the applicant must demonstrate that the well site location will protect the wetland.

- "Other critical communities" to be protected would include species of special concern identified on a PNDI receipt, including species simply proposed for listing as threatened, endangered, rare or candidate.

    - The ANFR had a more confusing but no less broad definition. This is meant to codify the PNDI policy. This change is significantly burdensome: the language includes rare and candidate species, as well as species proposed for listing as threatened or endangered. Beyond that, however, the new language includes any species of special concern listed on a PNDI receipt. Since the Ch. 78 regulations do not and cannot govern how a species is included in the PNDI receipt, the new language leaves such species designation without public process, standards or limits.

- Additional agencies to comment on well permit applications would include any "educational entity," counties and various federal agencies, including USCOE, US Forest Service and US National Park Service. Additional "public resources" to protect would include all community operated recreational facilities.

- An applicant proposing to drill a well that involves one to less than five acres of earth disturbance over the life of the project and is located in a watershed that has a designated or existing use of high quality or exceptional value pursuant to Chapter 93 must submit an erosion and sediment control plan consistent with Chapter 102 with the well permit application for review and approval and must conduct the earth disturbance in accordance with the approved erosion and sediment control plan. This is a new plan approval process. Given that it is an "approval" and not a permit it is unclear how DEP will determine if plans are "consistent" with Chapter 102.

- Section 78.15(h) utilizes the term "enhanced drilling or completion technologies." This term is not defined.

- For wellhead protection area the revision now specifically incorporates the requirements of section 109.73 regarding wellhead protection program.

- The inclusion of wellhead protection areas as an additional resource to be included in a new public comment process for well permits is contrary to Act 13, in which the legislature already considered and addressed protection of water wells and included setbacks in Section 3215 (a). Even if the addition of this resource were authorized under the statute, it would invite comments on well permits that would be located in a zone that "contributes surface water and groundwater" to zones within a half mile radius around the source, a geographic area that is without reasonable bounds for such review.

- DEP removed the helpful language that reminded the DEP carries the burden of proving its conditions protecting public resources are necessary to protect against probable harmful impacts, not simply impacts.

78.52 – Area of review

- Adds plugged and abandoned wells to be identified in the area of review.

- The operator of a vertical oil well which will be stimulated using hydraulic fracturing shall identify the surface and bottom hole locations of active, inactive, orphaned, abandoned, and plugged and abandoned wells having well bore paths within 500 feet of the well bore.

    - This significant new requirement is added without consultation with industry and without any analysis of need or costs. This new requirement is fraught with ambiguity including what it entails to identify the bottom location of a well, how the endeavor is to be performed when wells are located outside of the operator's ownership, whether the bottom location is the current bottom location or the bottom location when the well was originally drilled (sometimes unknowable in the case of abandoned or orphaned wells), what responsibility the state will assume for providing the information relative to orphaned wells, etc.

- The Department may require other information necessary to review the report. The Department may make a determination that additional measures are needed, on a case-by-case basis, to ensure protection of waters of the Commonwealth.

78.51 Protection of Water Supplies

- Quality of replacement water modified: minimum is still Safe Water Drinking Act, but if the quality prior to pollution was BETTER than SWDA then replacement must meet the higher standard. This section still requires SWDA even if original quality is less than SWDA and even if the water supply is used for commercial, industrial or agricultural purposes.

EXHIBIT B

78.56 – Temporary storage

- Requires DEP approval of any pits, tanks or storage structures used for materials during drilling, altering, completing, servicing and plugging wells.

78.57 – Control, storage and disposal of production fluids

- A well operator shall register the location of an additional underground storage tank prior to installation. Registration shall utilize forms provided by the Department and be submitted electronically to the Department through its website.

- New or replaced aboveground or underground tanks must meet all, not simply applicable, corrosion control requirements in 25 Pa Code Sections 245.432, and 245.531-245.534.

    - For above ground tanks this includes: evaluation by a corrosion expert to determine if cathodic protection is necessary; exterior coating of tanks and piping which prevents corrosion; provisions for interior lining (if used).

- Deficiencies in tanks storing brine or other fluids produced during operation of the well must be noted during the inspection and addressed and remedied. When substantial modifications are necessary to correct deficiencies, they shall be made in accordance with manufacturer's specifications and applicable engineering design criteria.

78.58 – Onsite processing

- Adds drill cuttings to onsite processing approvals needed

- An operator processing fluids of drill cuttings must develop an action plan specifying procedures for monitoring for and responding to radioactive material produced by the treatment processes, as well as related procedures for training, notification, recordkeeping, and reporting.

78.59b – Well development impoundments [Freshwater]

- Any existing freshwater impoundments that do not have synthetic impervious liners, and either 24 hour supervision or fence, must be upgraded.

78.65 – Site restoration

- An operator of a well site which is required to obtain a permit under § 102.5(c) must develop a written restoration plan, including specified drawings and narrative described

in the proposed rule. Note: 102.5(c) involves oil and gas activities greater than 5 acres in size.

78.66 – Reporting and remediating spills and releases

- For spills greater than or equal to 42 gallons, within 45 days after a required remedial action plan is fully implemented, the operator or other responsible party shall submit a remedial action completion report, containing elements in 25 Pa. Code Section 245.313(b), to the appropriate Department regional office for approval.

78.67 – Borrow pits

- Borrow pits shall be considered part of the project along with the well site for ESCGP permits.

78.73 – General provision for well construction and operation

- Notice must be provided to operators of wells identified under section 78.52a 30 days prior to drilling, or at the time of permit application if the drilling will commence less than 30 days from permit issuance.

- Immediate electronic notice is required when there is any change to a well being monitored, or something indicates abnormal fracture propagation at the well-being stimulated, or a confirmed well communication incident.

78.111 – Abandonment of radioactive logging sources

- Upon plugging a well in which a radioactive source is left in the hole, the operator must place a permanent plaque as a visual warning to a person reentering the hole that a radioactive source has been abandoned in-place in the well.

- The permanent plaque placed above the plugged well with radioactive material must state the date that the source was abandoned.

MARCELLUS SHALE COALITION™

Statement of the Marcellus Shale Coalition
Final Rulemaking – DEP Chapter 78/78a Oil & Gas Operations
Patrick Henderson, Director of Regulatory Affairs
April 21, 2016

Mr. Chairman and members of the Commission, thank you for the opportunity to provide some comments regarding the final Chapter 78 rulemaking before you today. My name is Patrick Henderson and I serve as Director of Regulatory Affairs for the Marcellus Shale Coalition. The Coalition represents over 200 member companies involved in all facets of safely producing and transporting Pennsylvania's unconventional natural gas resources.

I want to first express our gratitude for the Commission's diligent review of this rulemaking over the past two years. As you know, we have submitted extensive comments to the Commission for your consideration, during the proposed and advanced notice draft rulemakings, and most recently on the final rulemaking. We also appreciate your staff's time in discussing these issues with us.

I want to emphasize that the MSC supports strong and consistent protections for our local communities and natural resources. The MSC and its members were engaged partners in the deliberation of Act 13 of 2012, which modernized Pennsylvania's oil and gas operations adding many enhanced environmental protections and provides the vast majority of legislative authority for this final rule. We have sought to provide constructive comments throughout this process; however, too often the reaction to these comments reflected a lack of understanding of our industry. As a result, we are faced with a final rule that, left unchanged, promises to discourage significantly the development of Pennsylvania's natural gas resources; imposes massive new costs upon operators; provides little tangible environmental benefit; and further erodes Pennsylvania jobs and investment at a time of historic economic challenges within the industry.

Why IRRC should reject the final rulemaking and return to DEP for changes

Much has been made that this product is years in the making, and has been subjected to an unprecedented amount of public involvement.

However, many of the most onerous provisions were only unveiled a year ago, without the accompanying data that is supposed to justify the rulemaking. It is also important to remember that the majority of rules necessary to ensure natural gas drilling is done safely and responsibly are already contained in Act 13, PA's revised Oil and Gas law. The Department of Environmental Protection (DEP) is left only to delineate by regulation those limited issues deferred by the General Assembly. The goal of DEP in these regulations should be to implement Act 13 – not rewrite it outside the confines authorized and intended by the General Assembly and our courts.

Yet, in too many situations that is exactly what DEP has done – as reflected in our comments previously submitted.

The Commission stresses the intention of the Regulatory Review Act, and the General Assembly, to achieve consensus throughout the rulemaking process. This is why it is a lengthy and oftentimes difficult process. Building consensus does not equal capitulation – we would not suggest that a fair process is only one in which we are completely satisfied.

But it does require an agency to not only hear, but to listen, to the concerns brought to its attention.

It is notable that DEP's own conventional advisory board has recommended that this rule be rejected, while its newly-constituted Technical Advisory Board has expressed serious reservations as well. Add to this a recommendation from both the Senate and House Environmental Resources and Energy Committees – and over 60 additional legislators – that the final rulemaking be rejected, and you are left only to conclude that these regulations need to be reconsidered and reworked.

Conclusion

We all support strong environmental protections. That is not in dispute. However, details matter. Adherence to the Regulatory Review Act and other parameters established by the General Assembly matters. Complying with the decisions of our Supreme Court matters.

This rulemaking fails to comply with the letter and the spirit of the laws enacted by our General Assembly. It threatens the very viability of hundreds of Pennsylvania businesses and thousands of Pennsylvania families.

The Commission has an opportunity to disapprove of this rule, and in doing so, to outline a path forward for DEP to modify the rule in a manner that allows DEP to move forward promptly with significant parts of the regulations, while revising other provisions to balance the interests of all parties while adhering to the laws of our Commonwealth. We urge the Commission to do just that.

Thank you for your consideration.

Media Statement

Independent Regulatory Review Commission vote on oil and gas regulations

April 19, 2016

Berks Gas Truth • Citizens for Water • Clean Air Council • Clean Water Action • Damascus Citizens for Sustainability • Delaware Riverkeeper Network • Earthjustice • Earthworks • PA Forest Coalition • Mountain Watershed Association • NYH2O • PennEnvironment • Sierra Club Pennsylvania Chapter • Upper Burrell Citizens Against Marcellus Pollution

For too long, oil and gas operators in Pennsylvania have conducted their activities under outdated regulations and limited oversight—factors that have helped spur ever-growing impacts on water, air, health, and communities.

While even stronger protections are needed, the final draft Chapter 78 and 78a regulations released by the Department of Environmental Protection (DEP) represent a significant step forward in aligning the state's oil and gas regulations with new technologies and modern-day practices used at both conventional and unconventional well sites. They reflect nearly four years of work, including 12 public hearings and 30,000 public comments.

Just as the general public, the oil and gas industry and legislators have had ample time to weigh in on the draft regulations. They have had an even greater opportunity to influence the final regulations due to their representation on various committees overseeing the formal review process. In addition, the oil and gas industry asked for two sets of regulations—and now there are two sets of regulations.

The two sets of regulations are properly promulgated and legally sound. Any continued efforts to derail passage of Chapter 78 and 78a undermine the Commonwealth's regulatory and policy procedures and DEP's statutory authority.

Our organizations ask the Independent Regulatory Review Commission to support the swift adoption and implementation of the regulations for both conventional and unconventional oil and gas operations.

A detailed letter to IRRC on the oil and gas regulations from environmental and citizens groups is available at: http://bit.ly/1SrlfFM

EARTHWORKS

Key facts about Pennsylvania's new oil and gas regulations

April 2016

Most of Pennsylvania's oil and gas regulations date back to 1984. Some parts of the Oil and Gas Act have been revised separately and Act 13 of 2012 addressed others. However, the current revisions are the first comprehensive changes to environmental protection standards for well sites in over 30 years.

Since the summer of 2013, the Department of Environmental Protection (DEP) has been revising these standards through a transparent process that included:

- 12 public hearings and nearly 30,000 comments submitted by residents, industry, environmental organizations, and elected officials.
- Following a bill passed by the state legislature, development of two distinct sets of regulations: Chapter 78 for conventional operations and 78a for unconventional operations.
- Two revisions of drafts following public comment periods.
- Meetings and votes by the Technical Advisory Board (TAB), Conventional Oil and Gas Advisory Committee (COGAC), and the Environmental Quality Board. The Independent Regulatory Review Commission and the State Attorney General will also review the regulations before they become law.

The final draft Chapter 78 and 78a regulations are a significant step forward in aligning Pennsylvania's oil and gas regulations with new technologies and modern-day practices. Some critical protections remain unaddressed, especially with regard to waste management, noise control, and setbacks. However, the new rules would prohibit the storage of polluting waste in open pits; trigger additional review of permits to drill near schools and playgrounds; require operators to identify old wells before drilling new ones; and require immediate notification of spills and releases of harmful substances.

Both conventional and unconventional operations rely on hydraulic fracturing (fracking) to stimulate production, use toxic chemicals and large volumes of water, disturb land, and generate polluting waste. According to the DEP's 2014 annual oil and gas report:

- Between 2009-2014, unconventional (Marcellus and Utica Shale) operators drilled about 8300 wells; conventional operators drilled over 7800.
- In 2014, DEP inspections were split about 50-50 between unconventional and conventional operations; however, conventional operations accounted for over three-quarters of violations issued.
- Between 2008-2014, over 60% of the investigations conducted by DEP on the possible migration of methane into drinking water supplies involved conventional operations.

There are key differences between the conventional and unconventional regulations:

- *Conventional operators* will still be allowed to use pits and open tanks to store waste; *unconventional operators* will have to use tanks, a series of tanks, or DEP-approved storage structures.
- *Conventional operators* will still be able to dispose of drill cuttings through pit burial or land application without a permit; *unconventional operators* will now have to get specific permits.
- *Unconventional operators* will have to follow new rules on temporary lines for water and wastewater and develop detailed water management plans; *conventional operators* won't have to do any of this.
- *Conventional operators* will still be allowed to use their brine waste for dust suppression and de-icing; *unconventional operators* will continue to be prohibited from doing so.
- *Unconventional operators* have to report their gas, condensate, and waste production volumes to the DEP every month; *conventional operators* only have to do so once a year.

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NADIA STEINZOR, EASTERN PROGRAM COORDINATOR: NSTEINZOR@EARTHWORKSACTION.ORG, 202-887-1872, EXT. 109

EARTHWORKS

April 20, 2016

Independent Regulatory Review Commission
333 Market Street
Harrisburg, PA 17101

Re: Regulation #7-484, Environmental Protection Performance Standards at Oil and Gas Well sites.

Dear Independent Regulatory Review Commission members:

Thank you for the opportunity to submit comments on the final draft regulations for oil and gas surface activities (amendments to 25 Pa. Code Chapter 78 and Chapter 78a, Subchapter C).

Earthworks is a nonprofit organization dedicated to protecting communities and the environment from the impacts of mineral and energy development while seeking sustainable solutions. For more than 25 years, we've worked to advance policy reforms, safeguard land and public health, and improve corporate practices. Our Oil & Gas Accountability Project works with communities, organizations, agencies, and elected officials to advance these goals nationwide, including in Pennsylvania.

Since the summer of 2013, the Department of Environmental Protection (DEP) has been revising standards for oil and gas well sites. This long and transparent process has included:

- Twelve public hearings and nearly 30,000 comments.
- Two distinct sets of regulations for conventional operations and unconventional operations.
- Meetings and affirmative votes by the Technical Advisory Board (TAB), Conventional Oil and Gas Advisory Committee (COGAC), and the Environmental Quality Board.
- In just the last week, submission of over 3000 comments by the public to IRRC in favor of the rules.

IRRC's decision clearly follows this long path of comprehensive review and vetting of the proposed regulations. The public, industry, and legislators have had ample time and opportunity to weigh in. The two sets of regulations are properly promulgated and legally sound. Given all this, continued efforts to delay Chapter 78 and 78a are nothing less than an attempt to circumvent Pennsylvania's policy and regulatory system and undermine DEP's statutory authority.

As with all types of policymaking, in the end not everyone gets everything that they want. To make progress, compromise is sometimes necessary. From our perspective, both Chapter 78 and 78a omit critical protections, in particular with regard to waste management, noise control, and setbacks from homes and schools. We will continue to work to achieve these protections.

Nonetheless, Earthworks believes that the regulations before you today are a critical step forward and must be adopted. They align Pennsylvania's regulatory framework with current oil and gas operations and technologies, which have changed dramatically in the last several years. They address in significant ways problems of waste production, drilling near schools and playgrounds, spills of polluting substances, and identification of abandoned wells.

I am here today on behalf of the 24,000 Pennsylvania members of the Sierra Club. The regulations you are reviewing today began its long adoption process in April 2011, when DEP initiated discussions with the Oil and Gas Technical Advisory Board (TAB) on amending the regulations to deal with the surface impacts of new drilling technologies, including hydraulic fracking. As you know, hydraulic fracking in used in both the conventional and unconventional oil and gas operations.

During the course of this rulemaking, the Oil and Gas Act was amended by the Pennsylvania General Assembly (Act 13 of 2012). The Oil and Gas Act directed DEP and the Environmental Quality Board (EQB) to adopt new rules for certain activities at well sites. We have participated in this process since the beginning. Our members have participated via testimony at public hearings and written comments.

Some comments received from conventional oil and gas operators during the initial comment period indicated that they wanted separate regulations because conventional operators. They stated that they were confused by the new rules. They claimed that DEP did not clearly distinguish which requirements applied to conventional operators and which applied to unconventional operators.

During the pendency of this rulemaking process, the General Assembly also passed Act 126 of 2014. Act 126, required regulations promulgated under 58 Pa.C.S. (relating to oil and gas) to "differentiate" between conventional oil and gas wells and unconventional gas wells. The Department and its legal counsel determined that the current rulemaking process could continue, but that the regulations would be separated into two distinct chapters on final-form rulemaking.

On September 25, 2014, DEP presented to the Technical Advisory Board two separate chapters of the regulation: Chapter 78 which apply only to conventional operations and Chapter 78a applied to unconventional operations.

On April 4, 2015, DEP published notice in the Pennsylvania Bulletin (45 Pa.B. 1615) announcing an Advanced Notice of Final Rulemaking (ANFR) procedure, including the two separate sets of regulations - Chapter 78 (which applied to conventional operations) and Chapter 78a (which applied to unconventional operations). DEP asked for form comments on the draft-final rulemaking for 30 days and extended the comment period.

Some comments argue that the intent and spirit of Act 126 of 2014 was meant to create two separate rulemaking proceedings which could not run concurrently. That view does not square with the text of the law. In fact, these regulations are two sets of regulations which clearly distinguish regulations applicable to conventional oil and gas operations and regulations applicable to unconventional oil and gas operations and which meets the requirements of Act 126.

While we believe that the regulations do not go far enough to protect surface and ground waters from serious environmental impact, we support these regulations. They will extend protections which are not currently in place. We believe that these regulations are properly promulgated. The regulations have received many levels of legal review. We do not believe there is any legal impediment to your approval.

I am speaking today as a member of Pennsylvania Interfaith Power & Light, a faith-based organization responding to climate change, and because as a concerned person, I worry every day about the future of the youngest members of my family.

I share the position of Interfaith Power & Light that the use of fossil fuels, including natural gas, is primarily a moral and ethical issue. We take seriously the accumulation of evidence by the scientific community that the continued use of fossil fuels is leading to a dangerous and uncertain future, with a very real possibility that our children will inherit a climate and a world that is out of control. If a climate out of our control is hard to conceptualize, we have only to think of the extreme weather conditions that are happening already, the sea level rise occurring in Miami, the current deluge of flooding in Houston, insect-borne diseases, and wild fires which are documented to be hotter than fires in past history.

In view of the increasing evidence that the continued use of any fossil fuels is dangerous, Pennsylvania Interfaith Power and Light recently approved a resolution favoring a moratorium on new gas drilling leases and new drilling infrastructure, including wells and pipelines. However, recognizing that we are not yet positioned for an immediate transition to renewable energy, it is apparent that regulations on gas drilling are the first and basic steps that are essential to protect our air and water, and consequently, the health and well-being of people and ecosystems.

The benefits of natural gas are usually argued in terms of cost benefit analysis, and lower carbon emissions when compared to coal. Unfortunately, it is becoming clear, and reported even in mainstream news, that the consequence of continued use of any and all fossil fuels is already creating havoc around the world.

Arguing about the difference between conventional and unconventional drilling, or about protecting homes and schools, sounds like the proverbial chairs on the Titanic. Of course, we should be protecting our homes and school. At the same time, we should be talking in longer terms and larger terms, about consequences in the world around us. Natural gas is a fossil fuel. We need to stop. If we are unable to stop now, we need to regulate as if our future depends upon it.

Rachel Mark

Rachel Mark
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April 19, 2016

Independent Regulatory Review Commission
333 Market Street, 14th Floor
Harrisburg, PA 17101

RE: Regulation #7-484: Environmental Protection Performance Standards at Oil and Gas Well Sites

Dear Commissioners:

I am providing comment on behalf of the Mountain Watershed Association, home of the Youghiogheny Riverkeeper. We are a nonprofit citizen-led environmental organization focused on protection, preservation, and restoration of the Indian Creek and greater Youghiogheny River watersheds. We represent over 1,400 members in southwestern Pennsylvania, the majority of whom live above the shale gas formation. I am here today to impress upon the Commission that despite how the oil and gas industry may feel, approving of these regulations is procedurally correct. And that any further delay of their approval ultimately puts the health and well-being of our members and the public at large at great risk.

During the initial public comment period for these updated regulations oil and gas industry representatives stated that conventional and unconventional operators should have separate regulations and further stated DEP did not make clear which requirements applied to conventional and which to unconventional operators. Comments received from conventional operators during the initial comment period recommended that they have separate regulations from unconventional operations because they were confused by the new rules. This has since been addressed by the General Assembly's passage of Act 126 in 2014 which requires regulations promulgated under Title 58 of the Pa.C.S. to "differentiate" between conventional and unconventional oil and gas wells. The DEP determined that the current rulemaking process would continue and that the final-form rulemaking would divide the regulations into two chapters. This final form correctly addresses the industry's fear of being held to inapplicable standards by describing conventional operations in Chapter 78 and unconventional operations in Chapter 78a.

The delay caused by industry insisting that they could not clearly read the regulations that govern their practices has already taken an unimaginable toll on the public and our members. These final regulations improve practices used in both conventional and unconventional well drilling, including: hydraulic fracturing, the use of toxic chemicals, land disturbance, and huge amounts of waste generation. Delaying them further will come at an unimaginable cost to the health and well-being of Pennsylvania residents who are currently being exposed to harmful toxins and are increasingly deprived of access to clean water because of the lack of regulations.

Testimony of Eva Roben, Aaron Jacobs-Smith, Esq., and Matt Walker
Clean Air Council

April 21, 2016

Before the Pennsylvania Independent Regulatory Review Commission
Regarding the final-form Chapter 78 and 78a revisions

Introduction

Good morning. My name is Eva Roben. I am the Clean Air Council Climate Change Outreach Coordinator. Thank you for the opportunity to provide this testimony.

Clean Air Council is a Pennsylvania environmental health organization that has fought to protect everyone's right to breathe clean air for almost 50 years. The Council has over 45,000 supporters, including many members throughout Pennsylvania who are impacted by oil and gas operations, and whose lives will be directly affected by the Chapter 78 and 78a revisions.

The Chapter 78 and 78a revisions are the result of five years of work by the Pennsylvania Department of Environmental Protection (DEP), including a dozen public hearings and an unprecedented level of public participation in the form of almost 30,000 comments. Throughout this regulatory process, the oil and gas industry and legislators, just like the general public, had multiple opportunities and plenty of time to offer input on the draft regulations. Industry and legislators have also been represented on committees that oversee the review process, allowing them additional opportunities to weigh in on the proposed revisions. The process for developing these revisions was fair and transparent, and the recent objections raised by the oil and gas industry and legislators can only be understood as a last-minute attempt to obstruct the regulatory process.

source of harmful air pollution. The chemical waste stored in these pits can emit hazardous air pollutants and ozone precursors that affect the health of nearby residents.

Second, there as many 300,000 abandoned and orphaned wells in Pennsylvania, only a small fraction of which have been identified — DEP's database has fewer than 9,000 abandoned and orphaned wells. Communication with abandoned wells is a universally recognized cause of water contamination from gas development. Also, abandoned wells can be a source of air pollution — including methane — that has been left uncontrolled. Chapter 78 and 78a contain a common-sense measure to start to chip away at the problem. Operators are required only to identify abandoned wells near the wellbore and laterals, and monitor the identified wells during drilling. If an abandoned well is altered, it must be plugged.

Third, Chapter 78 and 78a's public resource provisions contain an essential acknowledgement that school common areas and playgrounds deserve special consideration when siting a well. The latest public health research has shown that the closer wells are to human populations, and the more wells there are, the higher the rates one can expect of a whole host of adverse health impacts. Combining these findings with the fact that children are particularly vulnerable to pollutants more than supports the added public resource review for school common areas and playgrounds.

These are just a few of the many much needed regulatory requirements contained in the rules under review today. The Council urges IRRC members to not given to obstructionist pressures. Industry has already succeeded in significantly delaying the promulgation of these rules. Pennsylvanians cannot afford to wait any longer.

Conventional operators have based their argument against the updated regulations on the fact that they believe their industry has little-to-no environmental impact. Nothing could be further from the truth.

Conventional wells are just as likely to cause water well loss and contamination to homes and business as unconventional wells. Because there are many more conventional wells across Pennsylvania this water loss and contamination is immensely magnified. Conventional wells also have a higher rate of violations (DEP estimates 3 times greater than for unconventional wells in 2014). Both types of drilling use fracking to increase production, and the wells are drilled through the same aquifers and in the same residential areas as unconventional wells. And because unconventional drillers are most often smaller companies, when they do cause irrevocable harm to Pennsylvania's public resources, taxpayers are more likely to foot the bill.

The passage of Act 13 in 2012 as well as environmental impacts that resulted from deficiencies within our current regulations necessitate updates to our oil and gas rules. The oil and gas industry is full of bright and creative people that will surely find ways to offset any financial burdens caused by these regulations. However, future generations can *never* undo much of the harm that is caused by poorly restricted drilling and the contamination that results. These regulatory updates include simple steps to protect public health and the environment and we at Mountain Watershed Association highly recommend they are adopted now, before much more drastic and costly measures are needed.

Thank you for your time,

Melissa Marshall
Community Advocate
Mountain Watershed Association

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Chapter 78 and 78A Hearing

Accountability isn't that what this is all about? For 9 long years industry has been here in South Western Pennsylvania. I live in Scenery Hill, Washington County with my 4 children. During that time there has been no accountability from industry even after being fined for the excessive violations that some companies seem to repeat. Scores of communities have told of the air and water violations, lying and arrogance of some in the oil and gas industry. Personally I have witnessed excessive flaring, holding ponds burning off, hoses dropped into the Monongahela River and local creeks, for dumping or removing of water.
Then there is the leaking of methane and volatile organic compounds from compressor stations (there are 2 within 1 mile of my home), transmission lines we have 3 and at the well sites still leaking. As of yesterday the American Lung Association ranked Pittsburgh as having some of the worst air quality in the country. Can you imagine what mine is like since there are no wells in the city limits?

We are encompassed by 8-10 well pads in 1-3 mile radios of my home and 23 well pads in all. On each of theses pads are 8-10 wells sometime 20 they are like small cities. All leaking
My nieces and nephews attend Bethlehem Center Schools there is a gas well ½ mile and 2 more within 5 miles from the school along with open pit mining and blasting going on behind the schools. West Virginia University conducted a study concerning the cancer-causing agents found near the schools and in its water. The children drink bottled water and some sport practices are held inside due to bad air quality. Fort Cherry Schools also in Washington County have 3 wells with in ½ mile from the school, some children are benzene exposed. This exposure is from the air and directly related to the fracking process.

A resident from a neighboring community West Pike township has a well 300 feet from his home, it is the 10th largest well in Washington County, there are 2 compressor stations and a lake that use to hold

residual waste now holds fresh water it is piped directly into the Monongahela river. There was a 9-mile spill and it was washed away in the middle of the night now the grass doesn't grow. Such violations as excessive pigging, flaring, tend to go on late into the night as production really ramps up. This there for increases the bad air quality and since people are sleeping not much gets reported.

Chapter 78 and 78 A has been under review for 4 years. There have been many public comment periods' 30,000. Is that worth nothing? The oil and gas industry and legislators have been represented on committees and had plenty of time to offer input, on the draft regulations, they have also been represented on committees that oversee and review this process. Everything was transparent and fair. Something that the industry and legislators are not being is fair. The recent objections from industry and legislators are an obstruction of the regulatory process.
I support the following revisions to Chapter 78 and 78 a
The inclusion of school property and play grounds in the list of public resources, which would trigger additional review of potential impacts during the permitting process.
New prohibitions on the use of pits and open top structures for waste storage
The addition of new standards and requirements for waste disposal. Such as secondary containment and specific permits and reporting mechanisms.
New closure and permitting process for waste impoundments and some waste pits.
Through pre-drilled surveys that investigate orphaned, abandoned, inactive, and plugged wells
Immediate notification by the operator of spills, releases, and other incidents involving regulated substances.

Pennsylvania has the unique opportunity to be a leader in regulating the industry by supporting regulations for both conventional and unconventional oil and gas operations. We cannot wait any longer. I ask the Regulatory Review Commission to protect our health and environment. Its time that industry is held accountable.