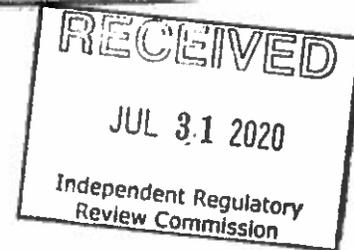


Emily & David Krafjack
1155 Nimble Hill Road
Mechospany PA 18629
570-637-0972
daisyodella@yahoo.com

3256

July 16, 2020

Environmental Quality Board
Rachel Carson State Office Building
16th Floor, 400 Market Street
Harrisburg, PA 17101-2301
<http://www.ahs.dep.pa.gov/eComment>



Re: [25 PA. CODE CHS. 121 AND 129] Control of VOC Emissions from Oil and Natural Gas Sources [50 Pa.B. 2633]

Dear Environmental Quality Board Members:

We are stakeholders that will be directly impacted by the success or failure of this rulemaking. For that reason, we are keenly interested in the on the ground results, the reality of how these regulations will play out, and whether or not they will actually reduce the affects of a nuisance well site and improve our local air quality. We are interested in knowing how the regulations will make a difference, how will it affect us personally, how will it affect our community, and how it will affect others whose homes are within 1,000' of well sites.

To the reader, we ask for patience. We know this is a lengthy comment. We explain our situation living so near to this source point of pollution, with the sole purpose to bring attention to the need for well site regulations. We also make note of provisions we aim to see deleted, modified or added. Thus, we ask for your sincere and thoughtful consideration as you read our comment.

INTRODUCTION

We live 500' from the Cappucci Well Site; a producing unconventional natural gas well site that includes six wells, other equipment necessary for production, a large tank and a large unregulated 1,300 hp (horsepower) odorous and noisy compressor engine. Prior to the installation of this industrial site along with three other (six wells each) well sites on our four-mile road, this was literally a very quiet pastoral setting consisting of one working farm and residential tracts mixed in between very large hayfields. It was quiet here. The air was fresh and clean. Our water was very good. As a result of the Cappucci Well Site located 500' from our home, it is no longer quiet here; the air is unpredictable at best,

malodors are common, and it is not unusual for these malodors to permeate within our home.

Methane is regularly venting from this well site, sometimes all day long, as it did just the other day. Included in that venting are toxic and carcinogenic VOCs; there is not a thorough and comprehensive report of what all is spewing from this well site on any given day and how it may be adversely affecting our health. Due to the lack of regulations, the compressor engine placed on this well site is quite old. In fact, as reported to me, it's likely 40 or more years old! It routinely malfunctions causing glycol to burn, which if you ever had to smell that inside your home -- you'd want adequately sufficient regulations capable of protecting public health too. The only time we have any relief from this well site is the brief period when the compressor engine so malfunctions it actually shuts down. Then then the relief valves start releasing the VOC-methane toxic spew. Eventually, the workers show up to repair it. That often results in more repeated engine restarts which are more malodors and noise. Our breakfast conversation is likely to note, "it is noisier today", "they were out there since 3 am and the air stinks so don't go outside", or something along that line. This is no way to be living. It is long overdue for the DEP to promulgate regulations capable of protecting public health especially for those of us living within 1,000' of well sites.

We were very encouraged to read that "The purpose of this proposed rulemaking is to implement control measures to reduce VOC emissions from existing oil and natural gas sources in this Commonwealth. There are five source categories that will be affected by this proposal: storage vessels; natural gas-driven pneumatic controllers; natural gas-driven diaphragm pumps; reciprocating and centrifugal compressors; and fugitive emissions components."

The Background and Purpose of the Proposed Rulemaking Notice notes that VOCs are a "public health and welfare hazard," that the mix with NOx creates ground level ozone which "may cause a variety of adverse health effects, including difficulty in breathing, chest pains, coughing, nausea, throat irritation and congestion." In addition, it notes that people with "asthma may have their symptoms exacerbated by ozone pollution. Asthma, in particular, is a significant and growing threat to children and adults in this Commonwealth." It goes on to say, "The implementation of additional measures to address ozone air quality in this Commonwealth is necessary to protect the public health and welfare and the environment."

You may wonder, why we're repeating this information here, but it is to put a face, or at least our words in writing, of our personal experiences confirming the need for adequate and sufficient regulations capable of protecting public health. Our home is 500' from the well site. a several acre site where all types of natural gas development and production pollution sources are located.

The development began in December, 2009 at the Cappucci Well Site. The first well was drilled in March, 2010. During the drilling of the first well, the noise was unbearable, I was dealing weeks with a migraine headache and I ended up with an ear infection. Did you know that particulate matter pollution is noted to be related to ear infections? We didn't, but that is one of the many things we learned as a result of this industrialization. Since 2010 we've only had one summer where we could actually sit on our porch and enjoy our home and property, and 2020 isn't it. All those other years they were drilling or fracking. We couldn't entertain, because of the unbelievably loud noise that was torture both inside and outside our home. When we tried, people left. They couldn't stand it.

In September, 2013 three wells were placed in production (in the gathering pipeline). Shortly thereafter my health started a rapid decline. Repeated lung infections, asthma exacerbations, and pneumonia were my constant struggle and I spent more time in bed and on the couch than anywhere. I had an appointment on the DEP BOGM TAB which I resigned from (I think in 2015) because I was too ill to even participate remotely. I endured uncontrolled asthma and exacerbations for months at a time. The only time I could get any relief was when we'd pack up and go camping for a couple weeks. Miraculously in a few days, I'd be breathing better. I'd be feeling great. Then we'd return home and within a two maybe three days, I'd be sick and back on the couch again.

All this lung trouble deteriorated my immune system and flared up allergies and caused digestive issues. At one point I found myself tolerating a mere 17 foods I was so very ill. My husband has developed allergies and has experienced more frequent sinus irritation. This has become more bothersome since he retired because he is in this environment daily now whereas when he worked, he was away from home perhaps 12 or more hours daily.

All of this happened since the three wells went into the gathering pipeline here. There's nothing else it can be. We've had our home re-tested for mold, radon. We've had our water tested numerous times. There's nothing to note in any of these tests. **What has changed is our air quality.**

We've had two doctors tell us to move. My pulmonary doctor said it was necessary for me to leave our home two days a week and get out and get some fresh air. And, that's great when we can do it. *(We shouldn't have to.)* But at one point I had lost so much weight I had no energy. Other times I was just too ill. I should be able to live in and on my property safely. We paid for it. We pay the taxes on it. We can't afford to move. This is the home we purchased with the plan to have good health and retire here. We've no other resources other than the DEP BAQ to take action and adequately and sufficiently regulate

unconventional natural gas well site air quality protective of public health, removing a harmful, local nuisance and returning our quality of life.

So, when the proposal notes that the VOC reductions *“would benefit the health and welfare of the approximately 12.8 million residents”* we want to note that we are much anticipating adequately sufficient regulations capable of protecting public health that will make that a solid reality for us and others who find themselves in a similar boat, and likely don't even know of this rulemaking or the processes involved with making regulations. In other words, people you aren't hearing from, doesn't mean they aren't affected; they either don't know about this process, they are too ill, they've given up on “government that works”, they're reluctant to comment or they just don't know how to go about it. So, yes, we're responding, I know how and I'm still sick. But, I wrote to the DEP nearly ten years ago asking for this, so you betcha I'm chiming in now. We desperately need relief from this well site's air pollution.

Now, as customary in rulemakings, there's the issue of cost, cost for the regulated community, costs for small business. **There's a cost you're omitting IF adequately sufficient regulations fail to be promulgated that are capable of protecting public health.** That's the cost of public health, medical expenses and stress. We've been experiencing this here. My health has been deteriorating since 2013. I see specialists often. In fact the last several months besides my PCP I've had many appointments with specialists. And, then there's the stress with degrading health and on how to pay for the new medical expenses.

We've been having quite a go-round with this well site for a year now. Last summer they drilled and fracked three wells. The air pollution was very intense for my more sensitive immune system that I was just so awful sick. So, while the operator again, ruined any possibility of us enjoying our property, we ran off on three different trips so I could have some relief. And every time it was the same. We were away a couple days, and I was feeling great. Then we returned and within two or three days I had breathing difficulties, extreme fatigue and digestive distress. By mid-September, we knew something was up. Something wasn't right over at the well site. They were done drilling and fracking but were still there daily and with a lot of noise. I wasn't feeling very well; in fact, I was back on the couch again. The operator, and this is likely the 4th time at least they came over to walk our property, check our well head and draw a sample of our water, all checking for methane. They had signs that methane was migrating. They did incur trouble with one or more wells, (on the well site) and the DEP was in process of encouraging them to repair the problem.

The next step was a compressor engine was installed during December, 2019. We were not advised of this. It would have been considerate to tell us. The DEP was not advised of this. We were experiencing horrible malodors often and increasing noise. I didn't think the DEP could do anything because of the lack of regulations, so we didn't call. Finally, one night while trying to sleep the malodors filled our home again. So, I filed a complaint online. When the DEP came out to the well site, that was when it was discovered a compressor engine was installed and operating on the well site! Why doesn't the DEP know about this I wondered? It took several contacts to find out that it was a 1,300 hp compressor engine. Not exactly the small item we were told about years ago. We were infuriated to discover that once again a polluting, industrial engine was placed on this well site across from our home and exempt from regulations.

As a result of this increasing pollution I had a severe, very severely painful asthma exacerbation that landed me in the hospital in March, 2020. Our expenses for asthma just keep increasing not to mention all the copays for doctor visits, increased medications and more medications. Then there's the continual deterioration of my health, to which allergies and digestive issues are still roaring to a point that it is difficult for me to consider doing anything but staying home. To which the vicious circle continues. We wanted to be optimistic. My husband decorated our porch as we did pre-shale. It looks beautiful, but we have yet to sit out for more than a few minutes. When the compressor engine malfunctions, the odors abate, we do go out and enjoy it, until the releasing begins or the workers show up. We've had to also purchase another air conditioner, so this is two we've had to purchase since this industrialization. So, as far as we're concerned, there are costs we are now and have been bearing due to the lack of an adequately sufficient air quality regulation protective of public health. The present on-the-ground situation is not adequately and sufficiently protecting public health. We are asking for some common sense regulations to prevent us and other families from going through such an unnecessary, tragic experience. You can't put a price on health, until you don't have it. Believe me, whatever this regulation may cost the industry, it doesn't come near to the price of health they've taken from me.

Another item mentioned in the rulemaking proposal was that *"Reduced ambient concentrations of ground-level ozone would improve the quality of life of animals, preserve this Commonwealth's biodiversity and reduce veterinary costs to farmers and citizens with pets."* We suggest there is more going on at this well site than concentrations of ground-level ozone. We have had 13 deaths in our cat colony since 2014; of those 13, 10 were cancer. That includes four dying last year and so far two already this year. Prior to 2013, a cat was more likely to come in contact with a coyote or farm machinery for their cause of unusual death. We had no, not one incidence of cancer before 2014. Cats age faster than

humans. This can be a warning. It's really a concern what the gas industry has been allowed to do with no air quality regulation on the well sites.

Subsequent to the wells going online in 2013, our neighbor, used to pasture his cows in a field near our home. Four years (2014-2017) I was dealing with mycoplasma pneumonia, I had it five times. I was really struggling. Someone suggested I talk with my farming neighbors, see what they noticed. My neighbor said, "No cancers in my cattle, but that field near you, I had to move my cattle from there. Two years straight I lost (they died) calves to mycoplasma pneumonia and I had to give the others antibiotics which I don't like to do. I won't pasture there anymore, that's strictly a hayfield now." Coincidence? We think not. There's more happening on these well sites than anyone knows because no one seems to know what to do, or lacks the will to do it. We really need adequately sufficient regulations capable of protecting public health. Lacking it we are all paying, all of us in the gas fields are paying for this with our health and livelihoods. It's about time we care about people who find themselves living in what is now known as an industrialized gas field due to no fault of their own.

This well site wasn't located with public health in mind. When it was placed here, the 500' set-back wasn't the regulation. Our experience of living here and seeing the effects, the government needed to do a proper investigation and seriously determine what was safe for public health rather than what industry will tolerate. What about the human factor? Nevertheless, the DEP has an obligation to folks like us, we've bore the brunt of this for years now and it is about time something reasonable be done here. **We need, we must have adequate sufficient regulations capable of protecting public health** or it's just a waste of paper.

As we studied the rulemaking, it became apparent that perhaps the central office doesn't have a good understanding of what is reality on the unconventional well sites. While the proposal states "*most requirements have no minimum level of VOC emissions under which sources are granted an exemption*", actually having an up-close and personal seat to what is happening here, leads us to have an opinion otherwise. Very strongly, we recommend NO EXEMPTIONS, NO EXCEPTIONS AND NO DEVIATIONS! The regional field office was not aware a compressor engine had been placed on this site until after I had filed a complaint. The 2018 Wyoming County emissions inventory which I perused didn't indicate any such equipment anywhere that I noticed. Why is that? It's here. Compressor engines, singly and in groups considered as compressor stations by the operators were placed on Wyoming County well sites during 2019 and 2020. There are no permits for any of these. To be clear, there are no permits for any of these. The BAQ has no data to provide information concerning the exemption of equipment. It's in the field, but it's not on paper and it's not in the computer. It's not in the emissions inventory, which is still very highly suspect because

we see what is happening at this well site and what is reported; certainly not all the releases and malodors.

I recall back in 2013 the DEP BOGM had a similar problem. They didn't know the well sites had certain infrastructure (tanks or impoundments) then, and likely BAQ didn't either. I served on a TAB subcommittee then, and I recall the DEP advising the operators they had so many days to report the location of this particular infrastructure on all well sites. They wanted and needed an inventory. The BAQ needs to do this. I can't make a cake without the correct ingredients any more than a regulation can be drafted with no data to back up exemptions. It's an incorrect premise to exempt what isn't inventoried or permitted in any way, and then use that as a basis for a regulatory proposal.

Beyond that however, there need not be exemptions at all. The field is changing. Compression is being added to well sites. Who knows what comes next? Something else exempt no doubt. Please, please, be forward thinking; stop the exemptions once and for all. We can't possibly wait ten years every time something changes in this dynamic setting, especially when it seriously affects public health.

COMMENTS ON RULEMAKING

Here follows our concerns with the proposed rulemaking regulation provisions.

§ 129.122. Definitions, acronyms and EPA methods.

Compressor station—

(iii) - The definition has compressor stations on well sites are being exempted. This is a prime indication that there's a DEP/industry disconnect. The Wyoming County Press Examiner noted (December 25, 2018) that "*A second submission was for a Plushanski Well Pad Compressor Station in Lemon Township, just west of Route 29. The site is being developed by BKV which acquired Carrizo's assets a year ago.*" If this was just an ordinary compressor engine placed on this site, they would not have been required to obtain approval from the county planning commission.

This provision is not reflective of the situation on-the-ground. If this clumsy provision remains in effect, industry will have ample opportunity to place compressor stations on any well site and not be adequately and sufficiently regulated for air quality capable of protecting public health. This is intolerable.

Reasonably, further clarification is necessary in order to determine at what point compressors located on well sites are in fact an operating field natural gas compressor station. We suggest a parameter of horsepower be considered. Presently, the Cappucci Well Site has one 1,300 hp engine. The DEP advised that this one engine is for one

particular low producing well. The operator, due to economic considerations is placing compressor engines on the well sites in lieu of drilling another well or re-fracking. Presently, this well site includes 6 wells. Extending this type of logic, one can easily illustrate that 7,800 hp may potentially be installed on this well site. In 2014 it was reported that (recordonline.com January 24, 2014) Columbia Pipeline Group owned the Milford Compressor Station which had 9,600 hp. This particular compressor station is located on a transmission pipeline. We find it very difficult to understand why well sites are being omitted as compressor stations. Many well sites have nine wells which with similar infrastructure would calculate 11,700 hp easily exceeding the hp noted on the Milford compressor station during 2014.

Clearly, this exemption needs further clarification.

How many engines or horsepower constitute a compressor station? Rather than exempt well sites from this designation, a better approach would be a definitive functionality or characteristic such as total horsepower onsite. We strongly recommend that the term includes well sites whenever total compression is equal to or greater than 500 hp originating from one or more compressor engines.

Another feature noted in the definition is that the compression moves natural gas at increased pressure through a gathering pipeline. **Gathering pipelines adjacent to well sites are gathering gas.** In reality, gathering begins directly at the edge of the well site. Again, take as an example the Cappucci Well Site where the gathering pipeline is easily measured directly at the edge of the well site at the distance of 38 yards. This gathering pipeline is in fact gathering gas as it contains gas from well sites in northern Mehoopany Township. Once the gas from the Cappucci Well Site enters the gathering pipeline, it is moved at increased pressure south to an interconnect. At the point of this interconnect the two gathering pipelines have gathered gas from perhaps ten well sites and potentially 60 wells. Gas is gathering in this pipeline. This is not a solitary pipeline for one distinct well site. It actually covers nearly 15 square miles of gas production. This is a typical description of what is happening in the Wyoming County and Northern Tier gas fields.

We therefore, recommend that item iii be revised as follows:

iii. The term includes well sites whenever total compression is equal to or greater than 500 hp originating from one or more compressor engines.

Deviation—

This definition applies to the following:

- 121.123 Storage Vessels
- 129.124 Natural gas-driven pneumatic controllers

- 129.125 Natural gas-driven diaphragm pumps
- 129.126 Compressors
- 129.127 Fugitive emissions components
- 129.128 Covers and closed vent systems
- 129.129 Control devices
- 129.130 Recordkeeping and reporting

This definition applies to all five of the source categories (121.123-129.127) this proposed rulemaking is primarily focused on reducing. It is of concern that rather than utilizing the existing Notice of Violation compliance protocol that a weakened two tiered standard is being introduced. We strongly recommend there be no allowable deviations from regulations. The Notice of Violation compliance protocol has worked well. There's no reason to weaken compliance tools. **Therefore, we recommend the deletion of this definition for "deviation".**

Flow line—

We recommend the below noted modification.

An onsite pipeline used to transport oil or gas, or both, on the well site.

The definition provided in the proposed rulemaking is confusing. Neither processing facility nor mainline pipeline is defined in the rulemaking. This leads to multiple interpretations of what is what. It's much clearer to denote a flow line as exactly what it is. It allows the natural gas to flow through well site infrastructure preparing it suitable to enter the gathering pipeline.

Fugitive emissions component—

We recommend the following language change.

- (i) A piece of equipment that has the potential to emit fugitive emissions of VOC at a well site, a gathering and boosting station or a natural gas processing plant, **not limited to** the following:

We recommend this change due to the dynamic nature of the industry, processes and technologies. It is necessary for the DEP field staff to have the authority to address ***any substandard equipment*** that the industry chooses to locate on well sites, gathering and boosting stations and natural gas processing plants.

Gathering and boosting station—

We strongly object to the exclusion of well sites in this definition.

We recommend the following language change.

- (ii) **The term includes well sites whenever total compression is equal to or greater than 500 hp originating from one or more compressor engines.**

The rulemaking proposal clearly states that the term does not include one or more compressors on well sites defined as a gathering and boosting station. The gathering and boosting station which actually collects natural gas from one or more well sites, basically serves in reality as a compressor station and is included in the compressor station definition. This is absolutely another opportunity for a bad actor to act badly at the expense of the environment and public health.

Natural gas and oil production segment—

The following modification is needed in (iii).

- (iii) **A low or high-pressure, both small and large diameter gathering pipeline and related components that collect and transport the natural gas, condensate, oil and other materials and wastes from the well to the natural gas processing plant or refinery.**

The reason for this modification is that it is convoluted and leads to a variety of interpretations. What is low pressure? What is the size of a small diameter gathering pipeline? If this definition strictly applied conventional wells, we could agree on the definition. However, as applied to unconventional natural gas wells it is not realistic. Generally, a small diameter pipeline is 8" or less. And, they would have a pressure of below 200 psi. However, it is well known that there are miles abundant in Pennsylvania's gathering fields where gathering pipelines are greater than 8" from the time the pipe leaves the well site and the pressures are beyond 1,000 psi in many cases.

There are two options with this provision. Clarify the types of wells it pertains; conventional, unconventional, natural gas only or multiple product lines. But, as it stands it is flimsy and has the potential to create misinterpretations.

Returned to service—

We recommend the addition of item (iii) as follows.

- (iii) **Reconnected or installed after having been subjected to leak detection and repair protocol.**

The reasoning for our recommendation is that at times any company in any industrial or commercial operation will remove an item from operations that is malfunctioning and installs a replacement. The removed equipment is very often set aside with other equipment awaiting repair. Then, at another location there is a malfunction of some kind and the mechanics haven't gotten to repair that item. Because of being stretched, they take a chance and send that unrepaired and untested equipment back out into the field taking the chance that the regulator won't notice. And, being the DEP staff is of insufficient staffing levels; this is a factor contributing to an unnecessary environmental impact.

§ 129.123. Storage vessels.

(b) VOC emissions limitations and control requirements.

We agree with the stringent approach of "the owner or operator of a storage vessel subject to this section shall reduce VOC emissions by 95.0% by weight or greater."

Note that there is an extended time frame from Proposed Rulemaking to Final Form that provides an adequate amount of time for the operator to prepare for such reasonable changes; changes that "Best Practices" would indicate a good operator would presently have in practice. Rather than "Beginning ... 1 year after the effective date of this rulemaking" we recommend a revision as noted below.

Within _____ (*Editor's Note: The blank refers to the date 1 year after the effective date of this rulemaking, when published as a final-form rulemaking.*), the owner or operator of a storage vessel subject to this section shall reduce VOC emissions by 95.0% by weight or greater.

(f) Requirements for a storage vessel returned to service.

There needs to be a better information trigger of when the storage vessel is returned to service. The proposal states "notification in the next annual report" which in reality could be nearly a year. There needs to be an interim informal email notification alerting the DEP that the vessel is on site. Field personnel need to be aware especially during inspections what equipment is on site for inspection.

§ 129.125. Natural gas-driven diaphragm pumps.

(b) VOC emissions limitation and control requirements.

(1) Well site.

We agree with the stringent approach of "the owner or operator of natural gas-driven diaphragm pumps subject to this section shall reduce VOC emissions by 95.0% by weight or greater."

Note that there is an extended time frame from Proposed Rulemaking to Final Form that provides an adequate amount of time for the operator to prepare for such reasonable

changes; changes that “Best Practices” would indicate a good operator would presently have in practice. Rather than “Beginning 1 year after the effective date of this rulemaking” we recommend a revision as noted below.

Within ____ (*Editor's Note: The blank refers to the date 1 year after the effective date of this rulemaking, when published as a final-form rulemaking.*), the owner or operator of a natural gas-driven diaphragm pump subject to this section shall reduce VOC emissions by 95.0% by weight or greater.

We particularly appreciate the inclusion of the well site provisions for natural gas-driven diaphragm pumps. We've been affected by the Cappucci Well Site's emissions since 2009 when the site was being developed. During the years since we've experienced many air quality impacts due to this site being constructed, drilled, and hydraulically fractured and as a staging site. Additionally, since 2013 when the first three wells were placed into production, we've had daily doses of air pollution that has dramatically altered the state of my health. We especially appreciate the “OR GREATER,” and applaud every effort the regulator makes to ensure the most restrictive controls are used at every well pad within 1,000' of occupied structures (measured from the edge of the well site).

Therefore, we recommend the following additional provision.

(iv) Well Site locations within 1,000 feet of occupied structures must install a natural gas-driven diaphragm pump capable of reducing VOC emissions by the greatest amount beyond 95.0% by weight (as measured from the edge of the well site).

This provision is reasonable and necessary. No entity in the Pennsylvania government has done any serious research as to what is a safe distance from a well site from to an occupied structure (home). There are numerous studies that indicate the closer people are to an unconventional well site the more likely they are to experience a litany of health issues. According to Johns Hopkins, those living close are likely to experience:

- Significantly 1.5-4 times more likely to suffer asthma attacks
- Adverse reproductive outcomes such as preterm births and lower birth weights
- A variety of symptoms involving the skin or upper respiratory tract
- Stress
- Sleep problems
- Anticipated decreasing home values

According to the CDC, ***Colorado has the third lowest cancer rate in the nation.*** Colorado cares about those dwelling within 1,000 feet of well sites and in their updated regulations are doing what they can to correct a problem that in the recent past was a build out similar to Pennsylvania, in that setbacks had no public health factor determining them.

In Pennsylvania, regulations have leaned toward what the industry can bear rather than public health outcomes. According to the CDC, Pennsylvania ***has the 16th highest cancer rate in the nation!*** It's time for Pennsylvania to correct what a random 500' setback has impacted. Those living within 1,000' of well sites are dealing with health problems. I am. Our pets are dying from cancer. We don't need to increase our national cancer rating to the 15th, 10th, or 5th highest cancer rate. Creating a provision for a more stringent requirement for well sites that should never have been sited this close to homes is a necessary action that must be taken now. The opportunity is here now. Let's take a bold step forward and care about the health of Pennsylvanians who are living in the most vulnerable locations within 1,000' of unconventional well sites.

(c) *Exceptions.*

We recommend this exception, which applies entirely to well sites be omitted. As a reminder, the purpose of this Proposed Rulemaking:

"The purpose of this proposed rulemaking is to ***implement control measures to reduce VOC emissions from existing oil and natural gas sources in this Commonwealth.*** There are five source categories that will be affected by this proposal: storage vessels; natural gas-driven pneumatic controllers; ***natural gas-driven diaphragm pumps;*** reciprocating and centrifugal compressors; and fugitive emissions components."

And the anticipated benefits:

"These reductions would benefit the health and welfare of the approximately 12.8 million residents and the numerous animals, crops, vegetation and natural areas of this Commonwealth by reducing the amount of ground-level ozone air pollution resulting from these sources."

The harmful effects of VOC emissions from Oil and Natural Gas Sources:

"In addition to climate change impacts, methane and VOC emissions have harmful effects on air quality and human health."

"Repeated exposure to ozone pollution for both healthy people and those with existing conditions may cause a variety of adverse health effects including difficulty breathing, chest

pains, coughing, nausea, throat irritation and congestion. In addition, people with bronchitis, heart disease, emphysema, asthma and reduced lung capacity may have their symptoms exacerbated by ozone pollution. Asthma is a significant and growing threat to children and adults in this Commonwealth. Reduced ambient concentrations of ground-level ozone would reduce the incidences of hospital admissions for respiratory ailments including asthma and improve the quality of life for citizens overall. High levels of ground-level ozone also affect animals including pets, livestock and wildlife, in ways similar to humans. Reduced ambient concentrations of ground-level ozone would improve the quality of life of animals, preserve this Commonwealth's biodiversity and reduce veterinary costs to farmers and citizens with pets."

And finally:

"This proposed rulemaking would help ensure that the citizens of this Commonwealth would benefit from reduced emissions of VOC and methane from regulated sources." "Reduced levels of VOC and methane would promote healthful air quality and ensure the continued protection of the environment and public health and welfare."

The Exceptions noted in provision (c) do not promote any of these items declared in the Proposed Rulemaking, well that is the Exception will certainly continue to contribute to the harmful effects of VOC emissions from Oil and Natural Gas Sources. And by harmful, continuing to put in harm's way the most vulnerable of Pennsylvanians living in the unconventional gas fields who have had their health and that of their children and grandchildren's impacted by VOCs for too many years. To "Except" them out of this benefit, of these more stringent controls is akin to no regulation in reality.

This provision must not be utilized as an industry giveaway.

Rather than give the gas industry an out, the equipment needs to be thoroughly analyzed. If it is located on a site anything like the Cappucci Well Site, we can expect some old, broken-down equipment from Mississippi, Louisiana or Texas was installed. That being the case put up or shut up. Yep, install the latest equipment fully capable of reducing VOCs to the fullest extent possible. This is most especially necessary when the edge of the well site is within 1,000' from the nearest occupied structure.

(d) *Exemptions.*

We recommend a modification as noted below.

The emissions limitations and control requirements in subsection (b) do not apply to the owner or operator of a natural gas-driven diaphragm pump located at a well site which operates less than 90 **non-consecutive** days per calendar year. An owner or operator claiming this exemption shall maintain the records under § 129.130(d)(3).

The operator can't be allowed to use exempt equipment on well sites during the summer months. We all know that Ozone levels are usually higher and occur more frequently during the summer months. This is not promoting good health outcomes for the neighbors when this may occur as "regulated" during all the summer months. Airnow.gov is an excellent site for learning about the harmful effects of summer air quality.

§ 129.126. Compressors.

(b) *VOC emissions control requirements for a reciprocating compressor.*

Note that there is an extended time frame from Proposed Rulemaking to Final Form that provides an adequate amount of time for the operator to prepare for such reasonable changes; changes that "Best Practices" would indicate a good operator would presently have in practice. **Rather than "Beginning 1 year after the effective date of this rulemaking" we recommend the modification of replacing "Beginning" to "Within".**

(d) *Exemptions*

This comment pertains to both the following provisions.

- (1) Is located at a well site.
- (2) Is located at an adjacent well site and services more than one well site.

We absolutely recommend NO EXEMPTIONS ON WELL PADS!

Exempting compressors at well pads is completely short-sighted and impractical. Operators have found it is less expensive for them to install compressors on well sites than drill and hydraulically fracture or re-fracture wells. This has been a frequent occurrence since the 2018 natural gas emissions inventory, so it is very possible this information has not filtered down to the central office. Our rural areas are no longer quiet. People living near well sites can hear these loud, noisy engines in areas that were quieter than a library, but no more. We have malodors inside our home often from this nasty, smelly, malodorous engine. Don't even think we should have more of these located here! **We totally object to this exemption!!!**

Further, the installation of a compressor engine on the Cappucci Well Site didn't filter down to our DEP Regional Office until we filed a complaint regarding the large, stinky equipment on the well site. We thought it was a compressor engine. The DEP dispatched an inspector to the well site in order to discern what I was talking about. This 1,300 hp compressor

engine - why wasn't DEP informed prior to its placement? This engine is a local nuisance for every family within 2,500' and especially us within 500'. **No way should this be exempt!** Every well site will eventually have these engines, perhaps multiples; or in other words, every 1,500' - 3,000' there will be compressor engine/s installed. Noisy, stinky and effecting our health -- burning glycol -- **malodors** due to regular malfunctions, sending **malodors inside our home**. Exempting compressors on well sites is akin to me as an asthmatic not using my inhaler! We know it needs to be done, and we know it will greatly impact respiratory health to not use an effective tool! Both involve creating better health for asthmatics, **NO EXEMPTIONS!!!!**

Perhaps we'd have a different point of view had health outcomes been a factor in well site locations -- but it was not. The opportunity is here to readily affect change for the better. Please take advantage of it!

§ 129.127. Fugitive emissions components.

(b) Requirements for a producing well site

We recommend the following addition based on the fact that well sites within 1,000' of occupied structures need more stringent requirements in order to adequately and sufficiently protect public health. **This pertains to all provisions within this section (b). There must not be a reduction in LDAR inspection frequency for any reason.**

Monthly leak detection and repair (LDAR) at all sites within 1,000' of occupied structures.

Those living nearby are being subjected to VOCs - toxic carcinogens daily even when the facility is properly working. They should not be exposed to excess toxins for nearly 180 days before anyone shows up to inspect. There's no reason to further burden those of us dealing with a variety of health challenges due to the too close siting of a well site. This will ensure the site is operating optimally and will better protect public health outcomes. It's also a benefit to the operator. This is only as effective as "trust but verify" by the DEP.

(f) Fugitive emissions monitoring plan.

(3) Our experience with field staff, contracted or operator's has been dismal. They promise to provide us with information and do not. They don't return phone calls. It's about impossible to get anyone on the phone. They mislead. At times, we feel we actually need to travel the nearly two hours to NCRO to get an indication of anything that is happening a mere 500' from our home that affects our health, that of our pets and our home value. We

know there is nothing DEP can do about the quality of staff the operators have, or the substandard operations. We just mention this to stress how much we are depending on the DEP field staff to have the proper equipment to observe and measure leaks, etc.

(4) (5) (6) DEP needs to provide parameters for fixing fugitive emissions components. It is not reasonable to have an open ended regulation.

(k) *Repair and resurvey provisions.*

Remove the provision regarding “technically infeasible.”

(1) (ii) (A) - This need not be technically infeasible; vent blowdowns occur from time to time. It's the way it is in the gas fields.

(1) (ii) (B) - This need not be technically infeasible; wells are shutdown from time to time. It's the way it is in the gas fields.

(1) (ii) (C) - This need not be technically infeasible; wells are shut-in from time to time. It's the way it is in the gas fields.

(1) (ii) (D) - If it is unsafe to repair during operation of the unit, there's an easy solution - shut it down and repair/resurvey it.

(1)(iii)(C) Modify to read **Within 6 months**. It's very unreasonable to delay a repair for 2 years when your aim is to reduce VOC emissions from existing oil and gas sources!

§ 129.130. Recordkeeping and reporting.

The term - “Deviation” is mentioned in this provision. How many deviations are tolerated during a specified period of time? This needs to be clarified if indeed the Proposed Rulemaking includes the “Deviation” definition. Also, at what point in these “deviations” does the operator alert the DEP they are having regular deviations?

NOISE REGULATIONS ARE NEEDED

Beyond the scope of this Proposed Rulemaking and very likely the Air Program is the urgent need to regulate noise in the unconventional natural gas fields. I have advocated for this ten years now. At one point noise provisions were added to the BOGM Rulemaking which became section 78a. Unfortunately, before the Final Rulemaking process was completed, these provisions were removed from the proposal. We needed regulations then. We still need them. In fact, we need them every day. The noise level here is unreasonable. Many are complaining, but most will not put pen to paper, or fingers to the keyboard. People become hopeless when they see the lack of action to protect them, hear of friends and neighbors who have had a variety of issues with well sites near their homes and nothing is done, or nothing is done timely. Problems drag on and on.

I previously explained the problems with noise here. But, I haven't noted how we don't sleep well because of the unpredictable nature of living next to an industrial site that is like cowboy land. No matter the time or hour methane releases and we hear it, malfunctions abound, and the incredible noise awakes one. The constant noise of the operating compressor engine makes it annoying to sit on our porch. We've had as high as 80dB readings on our porch since the compressor engine was installed. What a horrible item to have installed so near one's home affecting health, the environment with emissions and noise. On our porch where we use to entertain with fellow pickers and grinders and play acoustic music all summer long. No more jam sessions. We can't out play the industrial noise, whether it is drilling, fracturing or now a compressor engine. We can't enjoy our property. We no longer entertain family and friends. The operator has been supposed to enclose this compressor engine in a sound mitigated structure which was supposed to be done in March. Here we are nearly July's end and still no structure. We wonder how well it will work. We drove over to another well site where they claimed to have placed such a structure. We could hear loud noise. We stopped at a friend's home nearby and asked him how the noise improved? He was shocked they actually placed any mitigation there. He didn't believe us. Frankly, it was hard to believe there was sound mitigation. We stopped at another well site with a building that day, with the building the sound meter on my phone was reading 75dB on the rural dirt road where there was no other traffic (our vehicle was turned off). We are in desperate need of noise regulations if we are ever going to hold on to our rural and farmland character or have any peace living in an industrialized zone.

The level of noise we were told to expect years ago, was a tractor in the distance. We live in the farming area, so we're familiar with that noise. Honestly, after 3 days of a tractor in a distance my farmer neighbor has his hay in. We knew it wouldn't be 3 days three times a summer with this well site. But, what we didn't know was to the degree we'd be misled yet one more time and again, in a situation where not one government that regulates cares. No way on planet earth does this noise compare to a tractor in the distance. It is exponentially louder and very unpredictable. Please, please consider regulating noise.

Noise travels with the wind. We are downwind most of the time from the well site. The more windy it is, the more noise inside our home (the more air pollution too). Our home is located at the inconvenient topographical elevation that actually allows our home to capture noise and reverberate within it like a snare drum. Why do I know this? Out of frustration I spent a great deal of time talking with sound experts across the nation who dealt with the oil and gas industry. As a result, I was motivated to advocate for regulation. Those experts understood what I was talking about. This needs to be corrected. This could be done with noise regulations. The industry is willing, both Southwestern and Chesapeake Energy are installing buildings, so you know they're getting complaints. But the buildings

need help. They need acoustically sound-proof sound mitigation. We need it. The EQB can make requirements for noise suppression and we implore you to do so.

CONCLUSION

I had planned to review the most recent emissions inventory, do some calculations, and determine what we'd be looking at right here. Unfortunately, the most recent inventory doesn't include the three wells recently placed in production, the 1,300 hp compressor engine or the numerous malodors and numerous releases that are experienced within a year. It's also highly suspect how the operator even reports this data, since they loop it all into one well. DEP needs to standardize this data, as I've mentioned before. It varies from one operator to the next; some actually report each individual well. We'd actually be more apt to trust such data, then everything nondescript lumped into one well. Please standardize this data input, well by well. We also recognize this data is completely as reported by industry. There are no audits, even to determine whether they are accounting for releases and malfunctions. How can they, when they aren't even onsite for the entire event? We don't view this data as accurate or reflective of the gas fields. This data can't be relied upon, and it would seem that everyone reviewing such data would come to such a conclusion.

In Addition to our preceding comments, we also strongly recommend the following:

- Do a complete directive to operators to provide current well site compression, date installed, horsepower, pollution prevention technology, noise mitigation technology methods used within 60 days. Share this information with BOGM.
- Add a provision providing that when compression is added to a well site the DEP must be notified in advance of placement and within 3 days of completed installation.
- To the fullest extent possible, craft regulations that provide more stringent requirements for environmental protection for air quality based on well site locations within 1,000' of an occupied structure as measured from the edge of the well site.

For the reader of our comment, we know it is lengthy. We applaud your efforts to stick with reading it. We hope you will take the time to think about what we've share, the decline of my health, the deaths our pets, the fact we can no longer enjoy our property. Imagine if you will that you or your daughter, mother, brother, father, son were living in a situation where their new neighbor so endangers their health their weeks are filled with doctor appointments and keeping track of meds, or being too ill to do much but lay in bed or on the couch. Imagine several of your family furries died from cancer because of this new neighbor. Imagine the noise that is so great, you no longer invite family or friends to

visit, because they've abruptly left in the past. Imagine paying taxes, being a homeowner with a really nice country situation with a nice porch where very often in the summer time people would stop by visit and kick-back and have a music jam. Now imagine, your neighbor has prevented all of this. Please, please promulgate adequate and sufficient regulations that are capable of protecting public health.

When industrial operations are placed next to someone's home (after they've been living there) and degrade the homeowner's health, environment and ability to enjoy their property, both the Commonwealth and the operator have a social, economic and public health obligation to reverse and restore the situation; not delay urgently needed regulations for more than ten years, not provide regulatory exemptions and not argumentatively oppose regulations through the use of lobbyists and litigation.

We weren't contrary to the gas development and the benefits it would bring to our neighbors. We were concerned how it would affect us, having industrialization come onto Nimble Hill and subsequently across the road from our home. This was an off the beaten path and healthy place to live. We thank you for the opportunity to comment in this rulemaking. We implore you to give adequate and careful consideration to our recommendations. Please provide for adequate and sufficient air regulations capable of protecting public health. The time is now!

Sincerely,



Emily Krajack



David Krajack