Town of Southeast

1360 Route 22
Brewster, New York 10509
Tel. (845) 279-5345
Fax (845) 278-2453
Email thay@southeast-ny.gov

Supervisor
Tony Hay

Town Board
Edwin Alvarez
Eric Larca
John Lord
John O'Connor

Town Attorney
Willis Stephens, Jr.

July 26, 2021

Attention Ona Papageorgiou

I am a Councilman in the Town of Southeast, New York. I am writing to urge the DEC to strengthen the proposed regulations 6 NYCRR Part 203 for the oil & gas sector air emissions.

Spectra Energy has many miles of pipeline and infrastructure in our town. I want to make sure that our resident's health and the health of our neighbors in Danbury, CT, Carmel, NY & North Salem, NY are considered and safeguarded when the final regulations are enacted by NYS DEC.

With that in mind, I support the attached technical recommendations from Clean Air Council with specific details to strengthen the proposed regulations for the oil and gas sector air emissions.

I urge NYSDEC to use its clear legal authority to go above and beyond the federal requirements for reducing oil and gas pollution - specifically methane - as part of its proposed rulemaking. The DEC should also update regulations to cover combustion sources, as these are also significant sources of methane and VOCs.

Thank you for your consideration.

Sincerely,

John Lord by Tony Hay

John Lord
Town Councilman
Southeast, New York
845 519 9024

Clean Air Council Comments on NYSDEC's Proposed Oil & Natural Gas Sector Emissions Regulations

July 2021

Introduction

Clean Air Council (the Council) submits the following comments on New York's State Department of Environmental Conservation's (Department proposed "6 NYCRR Part 203 Oil and Natural Gas Sector," and "6 NYCRR Part 200, General Provisions" regulations. The Council is a non-profit environmental health advocacy organization headquartered at 135 South 19th Street, Suite 300, Philadelphia, Pennsylvania, 19103. The Council has been working to protect everyone's right to a healthy environment for over 50 years. The Council has members across Pennsylvania and the surrounding region, including New York, New Jersey, and Delaware. The Council has previously commented on compressor stations and pipelines in New York and provided technical comments on the Department's 's Regulation Outline for its oil and gas rules in 2018.

In order to realize New York's emission reduction targets and goals to address the climate crisis, it is imperative that the Department develop the most rigorous regulations possible for the oil and gas sector. The Council submits the following comments to NYSDEC to provide information that can be used by the Department to most effectively control and limit emissions from natural gas infrastructure in New York. Many of these recommendations are reflected in the U.S. Environmental Protection Agency's (EPA) Natural Gas STAR program, are codified in state regulations across the country, or go above and beyond existing voluntary programs or regulations. Natural Gas STAR is a voluntary program based on cooperation with the natural gas industry; these technologies have been put into practice throughout the country, pay for themselves over time, and reduce emissions. The Council strongly recommends these measures be considered for adoption in new regulations. Thank you for the opportunity to present these comments.

1. NYSDEC Should Specify what Constitutes a Leak for OGI and Require OGI Operators to be Certified.

The Department omitted the definition of what constitutes a leak as detected by optical gas imaging (OGI). (See Proposed Part 203 Reg pdf pg. 38) This definition is of critical importance as it is what triggers the repair window to begin. Other states such as Ohio, Pennsylvania, Texas, and Utah define a leak detected by OGI as any "visible emissions."1 Not including this

[1] "Equivalency of State Fugitive Emissions Programs for Well Sites and Compressor Stations to Proposed Standards at 40 CFR Part 60, Subpart OOOOa" available at https://www.epa.gov/sites/default/files/2018-

simple definition would represent a significant potential loophole for natural gas infrastructure operators to exploit.

NYSDEC should also require that all OGI inspections performed with the intent of complying with LDAR be performed only by personnel certified in the use of the device. This is especially important for cases where quantitative OGI may be employed.

2. Shorten Leak Repair Timeframes and Better Define Leak Documentation

Section 203-7.2(c) of the proposed regulation states that:

" Leaks shall be repaired within thirty (30) days of identification unless one of the conditions of 207-3(f) apply."

This repair period is too long and would allow for far more emissions than is necessary. Additionally, it is significantly less stringent than the repair timeframes set forth in states such as Texas and Utah. Both of these states require leaks to be repaired within 15 days of the initial detection.2 Repairs should be completed as expeditiously as feasible in situations where leaks are emitting directly to the atmosphere. Pennsylvania's GP-5 and GP-5A require that repairs take place "as expeditiously as practicable" after detection, with a first attempt at repair within 5 calendar days. Both permits require the repair to be completed within 15 calendar days. Colorado also requires a first attempt at repair be performed within five days. The Council urges the Department to add those same timelines to this rulemaking. The only reasonable allowance for delays in repairs would be in situations where replacement parts need to be specially acquired. In such instances, as in Pennsylvania, repair should be required within 10 days of receiving the part. To alleviate such potential delays, NYSDEC should include a provision requiring the operator to maintain an inventory of back-up components where economically feasible.

The Department should also include significance thresholds for leaks that necessitate even more rapid repairs. Such repair thresholds have already been implemented in California. California requires that standard leaks be repaired within 14 days, leaks between 10,000ppmv and 49,999ppmv be repaired within 5 days, and leaks greater than 50,000ppmv be repaired within 2 days.3 Including these tiered thresholds would go a long way to reducing fugitive emissions.

09/documents/equivalency_of_state_fugitive_emissions_programs_for_well_sites_and_compressor_stations.pdf

[2] "Assessment of State-Level Fugitive Emissions Programs in Comparison to EPA NSPS Reconsideration Proposal" available at https://www.edf.org/sites/default/files/content/Appendix_A_McVay_and_Roberts_Assessment_of_State-Level_Fugitives_Emiss....pdf

[3] "Equivalency of State Fugitive Emissions Programs for Well Sites and Compressor Stations to Proposed Standards at 40 CFR Part 60, Subpart OOOOa" pg. 6, table 4.

The Department should clarify the information that must be included in the baseline report. (See Proposed Part 203 Reg pdf pg. 6) As written, it is unclear if the baseline report is an inventory of equipment or covers more substantive information such as estimates of baseline emissions at a facility. An equipment inventory is useful for the estimation of potential leak emissions and the inclusion of an estimate would aid in better documenting overall source emissions.

Similarly, the information contained in LDAR inspection documentation should be clarified. It is currently unclear if the inspection documentation is merely the date of inspection and which components were inspected, or something more. Commenters suggest providing better detail about what is expected in a report, and should require, in the very least, information about the leaks found and the magnitude of leaks. (See Proposed Part 203 Reg pdf pg. 8) What is required of LDAR documentation is especially vague. LDAR documentation should require, in the very least, ppm values and locations of leaks if a Method 21 inspection is performed or the location of leaks accompanied by still images or, preferably, video clips if an OGI inspection is performed (See Proposed Part 203 Reg pdf pg. 49). Without better defined documentation and recordkeeping, it will be hard for operators to know what to expect to submit to the Department, and it will be hard for the Department to enforce or track inspections.

3. Implement a Leak Mitigation Stop-Gap Measure During the Eighteen Month Wet Seal to Dry Seal Conversion Time Frame for Compressor Stations

The Council supports the requirement that leaking wet seals at compressor stations that cannot be repaired in a timely manner be replaced with a dry seal. This replacement represents a significant improvement. However, the Council believes that NYSDEC must either drastically reduce the conversion timeframe or include a stop-gap requirement so that the leaking seal isn't potentially left unaddressed for up to eighteen months. A provision to require interim mitigation measures as soon as possible should be added in addition to the replacement.

The minimum wet seal emission flow rate to trigger a repair is three standard cubic feet per minute in this regulation. If left unattended for eighteen months, a single compressor meeting that minimum emission rate could be responsible for over 2,365,000 standard cubic feet of fugitive emissions. This is an immense amount of greenhouse gasses to allow to escape while awaiting for the conversion to a dry seal. Again, the Council urges the Department to add a stop-gap measure requirement to mitigate these emissions as soon as possible and attempt to make the conversion to a dry seal within three months.

4. Require Capture for Scheduled Blowdowns

The Council is very disappointed by the Department's decision to not include capture requirements for scheduled blowdowns. Commenters continue to strongly support full capture requirements for scheduled pipeline blowdown gas with no venting to the atmosphere. This also

extends to the capture and recovery of any and all emissions associated with pigging operations.

Cost, case studies, and feasibility analysis of many of the options mentioned by the Department are already available in EPA's Natural Gas STAR program here and here. A report prepared for the Environmental Defense Fund in 2016 also details several options for the mitigation of blowdowns and can be found here. Such studies demonstrate the feasibility of these capture measures, and the inclusion of them as requirements would put New York on the forefront of protecting its residents from the potential dangers of natural gas infrastructure and prevent the release of massive quantities of greenhouse gases. While all of the options detailed in the reports above are preferable to uncontrolled release, the Council strongly recommends that NYSDEC should require operators to use inert gas and re-capture blowdown gas rather than flaring.

5. Lower the Threshold for Blowdown Notification and Reporting

While the Department should require that operators make the changes necessary to capture planned blowdown emissions as detailed in comment 4, Commenters also urge the Department to lower the notification and reporting threshold for both scheduled and unscheduled blowdowns from 10,000 standard cubic feet to 2,500 standard cubic feet. Lowering this threshold would represent a minor increase in paperwork for operators and the Department as, according to EPA data, blowdowns tend to average 10,000-15,000 standard cubic feet per event, but it would ensure that the surrounding communities are notified of all large-scale releases that could have an impact on their health and quality of life. Many members of the community feel very strongly about their desire to know ahead of time about even minor blowdowns.

The additional blowdowns captured by the lowering of this threshold would also serve to provide a more robust paper trail for the Department to utilize in its efforts to verify company reporting and enforce these regulations.

Specific limits for planned blowdowns should be developed based on data gathered for each segment of line being maintained to ensure that operators are optimally operating with the lowest emissions possible. The Department should develop a maximum limit for planned blowdowns to ensure that if a planned blowdown emits more than what is expected, operators will report these emissions and be held accountable for them.

6. Establish an Inspection/Auditing Process to Ensure Compliance

A regulation is only as good as the ability of the governing agency to enforce it. The Department must develop an inspection and auditing plan specific to the natural gas infrastructure covered by this regulation as a means to verify compliance. Commenters recommend that such a plan include, at minimum, annual inspections by Department inspectors.

It is very important to the members of communities that have to coexist with this infrastructure to know how the Department will be ensuring the compliance of the facilities covered by these regulations. Commenters recognize why self-reporting is a constant component of the regulatory process; however, time and time again, operators have demonstrated that compliance cannot be confirmed by the honor system alone.

7. Include Stack Emissions Regulations for Engines and Turbines that would Establish State-Wide Best Available Technology (BAT)

In Pennsylvania, General Permits 5 and 5A (GP-5 and GP-5A) were used not only to reduce greenhouse gas and VOC emissions from leaks, but also to update statewide BAT requirements for engines, turbines, pigging, compressors and LDAR.4 The Department should not save specific combustion BAT requirements for a future regulation, but should act now to ensure the greatest possible emission reductions. GP-5 and 5A set emissions standards in Pennsylvania not only for VOCs, but also for NOx, PM, and CO, ensuring that turbines and internal combustion engines at non-major compressor stations would operate with lower emissions rate for these pollutants.5 Pennsylvania's general permit standards extend to more sources than NYSDEC's regulation and is more comprehensive and wider in scope, covering not only turbines, engines and other combustion sources, but trucks, flares, and other emission controls. While these rates will change over time, the Department can modify its regulation to match updates to technology and further reduce emissions as rates improve over time with advances in technology. Without setting maximum emissions rates for other pollutants, the Department is missing a key opportunity to reduce harmful criteria pollutant emissions from combustion that would better protect public health.

8. Require Higher Storage Vessel Vapor Control Efficiencies and Lower the 6 TPY VOC Threshold for Tanks

Requiring that all future tank infrastructure have zero emissions is an excellent and much needed inclusion in the regulation, however the control efficiency requirement for tanks that pre-date the regulation is lacking. The vapor control unit (VCU) efficiency requirement should be raised from 95% to 98%. (See Proposed Part 203 Reg pdf pg. 22, 25, 44)

---

[4] "Overview of GP-5A, GP-5, and Exemption 38" PADEP at https://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/Methane/GP-5%20GP-5A%20and%20Ex%2038%20Overview%20Jun%202018.pdf

[5] "GENERAL PLAN APPROVAL AND/OR GENERAL OPERATING PERMIT BAQ-GPA/GP-5 Natural Gas Compression Stations, Processing Plants, and Transmission Stations" PADEP at http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=19614&DocName=01%20GP-5%20NATURAL%20GAS%20COMPRESSION%20STATIONS%2c%20PROCESSING%20PLANTS%20AND%20TRANSMISSION%20STATIONS%20GENERAL%20PLAN%20APPROVAL%20AND/OR%20GENERAL%20OPERATING%20PERMIT.PDF%20%20%3cspan%20style%3D%22color:blue%3b%22%3e%28NEW%29%3c/span%3e

98% is regularly achievable in fields that are similar to that covered by this regulation. Below is a quote taken from EPA RBLC ID TX-0887:

"During tank roof landing and refilling, the emissions are routed to the temporary flare or liquid vapor recovery unit with an equal or greater than 98% destruction efficiency for C3+ VOC."

In this case, the VCU is capable of maintaining 98% efficiency specifically during loading and landing, a period when emissions are generally higher and harder to capture. With this information, it is clear that this regulation should hold VCUs to the same standard.

There is no record keeping requirement for VCU efficiency in the current iteration of the regulation (See Proposed Part 203 Reg pdf pg. 49). Recording of VCU efficiency should be added as a requirement of this section. Recording control efficiency will help maintain a compliance record for NYSDEC and is necessary to ensure efficiencies are enforceable and being measured regularly.

Section 203-3.1(a) states:

"Applicability: The requirements of this section apply to all storage vessels located at oil and natural gas well sites with a PTE greater than or equal to six (6) tpy of VOC."

The Department should significantly lower the VOC threshold for each tank from 6 tpy to 2.7 tpy. Currently, standards in other states, like Pennsylvania's GP-5A standards, have a requirement to "Reduce emissions by 95% for tanks with a methane emission rate of 200 tpy or greater, total VOC emissions of 2.7 tpy or greater, a single HAP emission rate of 0.5 tpy or greater, or total HAP emissions of 1 tpy or greater shall route all vapor through a closed vent system to a control device with at least 95% reduction of emissions." (See Attachment 2)6 Note that this 95% reduction rate was rolled back from a previous version that was a 98% reduction rate.

The Department itself states that it "has determined that very few wells may have storage vessels that would trigger the threshold for the proposed vapor recovery requirement." (Proposed Part 203 Reg pdf pg 77) and "[w]hile the Department does not believe there are many storage vessels that exceed the threshold, if an assumption is made that ten to fifty percent of active wells have storage vessels that exceed the threshold, then New York can expect CH4 emission reductions between 6,309 and 31,545 MTCH4 (157,725 and 788,625 MTCO2e -- 100 year GWP) (529,956 and 2,649,780 MT CO2e -- 20 yr GWP) and potential corresponding VOC reductions of 1,009 to 5,049 tons." While these reductions are admirable, the assumption used to derive them, the uncertainty given, and the wide range of potential reductions leave many unanswered questions. This level of uncertainty and speculation is unacceptable, especially when simply lowering the threshold would ensure these reductions, or

[6] "Comparison of PA 38 and GP5 and EPA Proposal Requirements" https://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/Permits/gp/Comparison%20of%20PA%2038%20and%20GP5%20and%20EPA%20Proposal%20Requirements%20-%2006112018.pdf

much greater reductions, would be achieved. The Department should lower the threshold to cover more than 10 to 50 percent of the tanks in New York.

9. Develop a Community Notification Process for Planned and Unplanned Blowdowns

Commenters appreciate the inclusion of 48 hour advance notice for planned blowdown events and 30 minute post-event notice for unplanned blowdowns. The Rule, as stated, suggests operators "Provide notification to the Department and appropriate local authorities" when blowdowns occur. While this notice is appreciated, commenters are unsure if this information will be received in a timely manner by local residents. Once again, commenters would greatly prefer that blowdowns are captured rather than vented to the atmosphere and thus necessitating this level of reporting.

Specifically, in previous comments, commenters stated, "The Council recommends requiring operators to notify relevant NYSDEC officials, residents within 2500 feet of the facility, relevant local and state officials and appropriate local emergency management officials, depending on the severity of the incident." Commenters urge NYSDEC to require notification to not only the NYSDEC and the municipality hosting the infrastructure with a blowdown, but also to all adjacent municipalities and nearby residents (within 2500 feet). Notably, the most important stakeholders, the residents impacted by emissions from blowdowns, are not included in the notification requirements. The Council believes that this level of notification is necessary and feasible given current technology. For example, NYSDEC may require local officials to send out an opt-in text alert or email alert linked to an existing local or state emergency notification system if one is available. NYSDEC should also make these notifications public on their website so residents may remain informed about events in their area, or set up a listserv that emails concerned individuals or groups so they may distribute this information. Public notice is key for public health, safety, and to limit exposure to blowdown pollutants and noise.

As previously stated by commenters,

"Community members should be notified directly when to plan for a blowdown event, especially so they can prepare to limit pollutant exposure to sensitive populations such as children, the elderly, or those with pre-existing health conditions. As blowdowns can be noisy for adjacent communities, planned blowdowns should be limited to daytime hours that are not during the pick-up or drop-off times for the local school district.

NYSDEC should retain the authority to reject the timing of a planned blowdown. This authority should be exercised with input from local officials after notification. This is not intended to prevent a necessary blowdown from ever happening, but input will avoid unnecessary community nuisance and exposure. A planned blowdown can be rescheduled and approved with this input in mind in order to reduce the overall impact of the event."

10. Provide more Information Behind the Decision to Reject Continuous Emissions Monitoring Technology on the Basis of Technical Availability

When considering alternatives to the current regulation, NYSDEC rejects continuous emissions monitoring at facilities stating that the "Department does not believe that CEM technology is as advanced as needed." (pg. 60) Commenters request more information about what led the Department to this conclusion and what analysis was done to rule out continuous monitoring. Specifically, what technology was considered, what were the detection limits of this technology, how reliable were the measurements, what was the frequency of measurement and data capture deemed to be "continuous," was there difficulty in processing big data from many data points, was cost used as a factor to rule out continuous detection?

While Commenters appreciate a framework for eventual inclusion of this technology, Commenters believe that technology does currently exist that is capable of monitoring fine particulate (PM2.5), VOC, and methane that would meet the needs of NYSDEC and operators. For this, Commenters direct the Department to their previous comment about continuous monitoring technology, including continuous OGI. (See Attachment 1, Previous comments, Comment "LDAR (Well Sites, Compressor Stations, Storage, and M&R Stations)." Note that, while open path sensors may not be practical for small facilities, small individual methane and Non-Methane Organic Compound (NMOC) sensors are widely commercially available for under $1,000 and have a lower detection limit that is well below the 500ppm leak definition of NYSDEC's regulations. See excerpted table from our previous comments below.

Sensor category	Monitoring technologies	Compound classes	Sampling rate	Simultaneous detection of multiple compounds?	General limit of detection	Remote capability	Cost range in US$	Degree of market penetration
Sample collection	Active sampling	Methane, benzene, non-methane organic compounds (NMOC)	Discrete, time-weighted average	Yes	Methane: < 1 ppm Benzene: < 10 ppb NMOC: < 50 ppb	Yes	Under $1,000 each	Widespread use
	Passive sampling	Methane, benzene NMOC	Discrete, time-weighted average	Yes	Methane: < 1 ppm Benzene: < 10 ppb NMOC: < 50 ppb	Yes	Under $1,000 each	Widespread use
Reactive	Pellistor	Methane	Continuous	No	Methane: 100–1,000 ppm	Yes	Under $1,000	Commercially available
	Electrochemical	Methane, total VOC	Continuous	No	Methane: > 100 ppm Total VOC: 100–1,000 ppb	Yes	Under $1,000	Commercially available
	Metal oxide semiconductor	Methane, total VOC	Continuous	No	Methane: 10–100 ppm Total VOC: 1–10 ppm	Yes	Under $1,000	Commercially available

KEY

Cost	Under $1,000	$1,000–$50,000	Over $50,000
Degree of market penetration	Available for purchase in larger quantities multiple vendors	Available but limited quantities/ limited vendors/prototype	Not commercially available, only used in research
Precision/resolution			
Methane	<1 ppm	1–10 ppm	> 10 ppm
BTEX	<10 ppb	10–100 ppb	> 100 ppb
Ozone-precursors	<50 ppb	50–500 ppb	> 500 ppb

A distributed network of sensors placed at strategic components around the facility, or at the

facility fenceline, is well within the realm of technically available, as similar systems are located at refineries and synthetic organic chemical manufacturing industry (SOCMI) facilities nationwide. (see Id.) The Department provides little to no information as to why these technologies were deemed technically infeasible, especially given the wealth of evidence to the contrary.

11. Increase the Frequency of Reporting for Pigging Activities

Commenters recommend that pigging activities be reported to the Department sooner. Once per year on March 31st, as set in the current regulation (pdf pg. 5), is not sufficient to regularly evaluate emissions from this common activity or notify adjacent communities of nearby pipeline activities.Therefore, commenters suggest that pigging activities be treated like scheduled blowdowns and be subject to the same reporting schedule, including prior notification of the Department.

12. Require Zero-Bleed Pneumatic Controllers for All Facilities

Cost-effective technologies are available to eliminate emissions from continuous-bleed and intermittent-bleed pneumatic controllers and pneumatic pumps. Federal rules and guidelines have required zero-bleed controllers at natural gas processing plants for several years and, while those same guidelines recommend only that pneumatic controllers at well sites have a bleed rate under 6 scf/hour (low-bleed controllers), this technology is not new and is generally considered to be the industry standard. The Council recommends that NYSDEC exercise its discretion to require installation of newer, zero-bleed technology at all facilities.

An August 2016 study by Carbon Limits shows that cost-effective zero-bleed options exist for both new and existing pneumatic devices, even where grid power is not being used at the site. These zero-bleed options have been proven to work robustly in upstream oil and gas operations.7 Specifically, Carbon Limits performed a comprehensive literature review and conducted 17 in-depth interviews with technology providers, as well as small and large oil and gas companies. Carbon Limits gathered up-to-date information on field experience with the implementation of zero-emission technologies, their applicability, and their costs. The zero-emission options Carbon Limits examined included:

- Using compressed "instrument air" instead of natural gas to drive pneumatic controllers.
- Using electronic control systems and electric valve actuators instead of pneumatic controllers and valve actuators for valve automation. This approach can be used both at

[7] Carbon Limits, Fact Sheet, Fixing the Leaks: What would it cost to clean up natural gas leaks?, available at http://www.catf.us/resources/factsheets/files/LDAR_Fact_Sheet.pdf. Full report available at http://www.catf.us/resources/publications/files/Carbon_Limits_LDAR.pdf.

sites where electricity is already available and at sites without grid power by installing solar-powered systems.

- Pneumatic controllers that do not release gas to the atmosphere, but rather release gas to a pressurized gas line. These are typically referred to as "bleed-to-pressure" or "integral" controllers.
- Capturing gas released from pneumatic controllers using vapor recovery units, or routing gas that would otherwise have been emitted to fuel lines on site.

Carbon Limits found that well-established, reliable, and low-cost technologies are available in almost all situations to replace venting pneumatic equipment. The Carbon Limits study demonstrates that for almost any configuration of oil and gas facilities, at least one of these technologies is an available, feasible, and low-cost means of methane abatement as compared to unmitigated natural gas-driven pneumatic controllers. In particular, both solar- and grid-powered electronic controllers and instrument air technology are in wide use today and readily available in the market. Carbon Limits accordingly concluded that "[o]verall . . . zero-emission solutions are available today and are cost-effective to implement in nearly every situation."

The Carbon Limits study includes a detailed analysis of the economics of electronic controllers and instrument air. Carbon Limits used the capital and operating costs of these systems and traditional pneumatic controllers, highly conservative estimates of emissions from gas-driven pneumatic controllers, and other parameters to calculate the net cost of these systems per metric ton of avoided methane pollution using a net present value formulation. The study considers the full cost of these systems. For example, for electric controllers at sites without electricity available, the costs considered by the study include solar panels, batteries, and control panels, in addition to installation costs and other expenditures. Notably, the conservative emissions factors used in the Carbon Limits model are likely too low in many cases, given the previously noted pattern of substantial emissions from improperly operating controllers.

An operator using either electronic controllers or instrument air to replace traditional gas-driven pneumatic controllers will generally replace all controllers (both continuous-bleed and intermittent bleed) and pneumatic pumps at a site, since all new controllers will use certain common equipment (such as solar panels and batteries for off-grid electronic controllers, or air compressors and tanks for instrument air-driven controllers). Typically, the cost of the common equipment is a large portion of total system cost, so the cost-effectiveness of the system will vary with the number of controllers (and pumps) at a site, in addition to other parameters.

Carbon Limits found that using instrument air and/or electric controllers as opposed to using gas-driven pneumatic equipment is cost-effective for the vast majority of site configurations. In these cases, the costs were lower than the social cost of methane and the costs that other states have considered appropriate for methane abatement.

To illustrate the cost-effectiveness of these non-emitting technologies, Carbon Limits created a spreadsheet tool that calculates the costs at a site with parameters entered by the user (see

Exhibit 1). The user-controlled parameters include:

- The number of controllers of various types at each site
- Emissions factors for those controllers
- Whether the site:
    - Is new or has existing gas-driven controllers being considered for retrofit
    - Has electric power available already, and
    - Has dry gas or wet gas;
- The value of the gas conserved by switching from gas-driven pneumatics to zero-emitting options to the operator
- Costs of various types of equipment
- Essentially all other parameters, from discount rate to the number of days of energy storage required for solar systems

Based on the availability of cost-effective means to eliminate or reduce emissions from intermittent-bleed controllers, the Council urges NYSDEC to consider the following options:

NYSDEC should require that all new controllers utilize zero-emitting approaches, such as electric controllers, instrument air, or the other options discussed above. These technologies and options are cost-effective, and as described above, there are a number of zero-emitting options to suit the varying needs of individual operators. Even when a site is not connected to the grid, electronic controllers are cost-effective because it is inexpensive to generate electricity on-site with technologies like solar panels, particularly when the costs of electricity generation are spread across a large number of controllers at a single site. As described above, unconventional wells drilled today are on large pads with multiple wells and a number of pneumatic controllers, making this approach very cost-effective.

Some exceptional circumstances may exist. Operators who have an unusual circumstance that makes every zero-emitting option infeasible or extraordinarily expensive always have the option of obtaining a site-specific permit.

However, the rare exceptional circumstance should not be used to justify allowing broad use of an outdated technology which, in the vast majority of cases, can be replaced with a non-emitting technology at very low cost.

13. Clarify or Correct Minor Text Errors and Omissions

Compressor wet seals should be measured at normal operating temperature and pressure (Proposed Part 203 Reg pdf pg. 2). Currently operating pressure is not mentioned in the regulation when measuring leaks, commenters believe this was an unintentional omission and suggest pressure also be at normal operating conditions when testing any pressurized gaseous system.

The sections governing centrifugal and reciprocating compressors on pages two and three of the proposed regulation both include a threshold stating that the regulation only applies to "compressors that operate fewer than 200 hours over a rolling twelve (12) month period." This seems to be an error. The Council believes that the "fewer than" included in this threshold should actually be "greater than."

Conclusion

Commenters urge DEC to use its clear legal authority to continue to go above and beyond the federal requirements for reducing oil and gas pollution - specifically methane - as part of its proposed rulemaking. The DEC should also update regulations to cover combustion sources, as these are also significant sources of methane and VOCs. Thank you for the opportunity to provide comments and for your consideration.

Sincerely,

Joseph Otis Minott, Esq.
Executive Director & Chief Counsel
Clean Air Council
135 S. 19th St., Suite 300
Philadelphia, PA 19103
215-567-4004
joe_minott@cleanair.org