



November 28, 2022

VIA EMAIL to RegComments@pa.gov

Environmental Quality Board
Harrisburg, PA 17105

Re: Final-Omitted Rulemaking: Control of VOC Emissions from Conventional Oil and Natural Gas Sources (25 Pa. Code Chapter 129), Emergency Certification, Regulation #7-580

The trade organizations identified above represent individuals and businesses engaged in conventional oil and natural gas production in Pennsylvania. We have continuously and consistently asked DEP to undertake a separate rulemaking to determine reasonably available control technology (RACT) requirements and emissions limitations concerning conventional oil and gas well VOC emission sources, as required by Act 52 of 2016. Attached are three letters showing why Act 52 made this separate regulatory treatment a necessary process for regulations targeting our industry.

DEP chose the “one size fits all” approach by adopting the federal 2016 “Control Techniques Guidelines for the Oil and Natural Gas Industry” (O&G CTG) for both the conventional and unconventional industry (except in three cases in which more stringent requirements were adopted), even though these guidelines are only *recommendations* to assist states in making *their own RACT determinations*, and federal law authorizes states to implement other technically-sound approaches consistent with EPA’s guidelines.

DEP did not even consider known and effective alternatives for the oil and natural gas sector, including those that would be appropriate for small businesses and the conventional industry, such as the existing inexpensive and effective sound and smell detection method used for the Mechanical Integrity Assessment or the inexpensive sight test using soap bubbles or inexpensive electronic leak detection devices that do not require training to operate as the expensive leak detection and repair (LDAR) devices required by the regulation do. Nor did DEP acknowledge the three types of conventional wells in Pennsylvania — oil; gas; and combined oil and gas — and their different configurations and therefore different potentials for VOC emissions.

That the federal guidelines do not distinguish between VOC emission controls for the conventional and unconventional industry does not excuse DEP from complying with the mandates

of the Regulatory Review Act (RRA) and Act 52 because *the federal guidelines do not dictate the process* for states to develop their own RACT determinations.

DEP had more than five (5) years to undertake and finalize, in accordance with Pennsylvania law, the VOC rulemaking concerning the oil and natural gas industry. But DEP missed two federal deadlines during this time *without regard to any actions* by the House Environmental Resources and Energy (ER&E) Committee. Then, just months before *another* federal deadline, DEP created what the Governor has certified as an “emergency” by not submitting the VOC regulation concerning conventional wells in June when it submitted the VOC regulation concerning unconventional wells.

It is simply not true, as implied in the emergency certification, that only one of the two intertwined — not separate — VOC rulemakings could have been submitted in June because, *four months later*, DEP submitted the one concerning conventional wells with the identical requirements that existed in June. Despite *years* to comply with both Pennsylvania law and federal law concerning the VOC rulemaking, DEP chose not to do so and, with the emergency certification, once again tries to justify not complying with Pennsylvania law by shifting blame for the potential imposition of federal sanctions to the House ER&E Committee.

We once again ask that EQB direct DEP to undertake the “separate and independent” rulemaking to determine RACT requirements and emissions limitations concerning conventional oil and gas well VOC emission sources as required by Act 52 of 2016.



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Submitted online at <http://www.ahs.dep.pa.gov/eComment> and
Via email to RegComments@pa.gov

Re: Comments regarding Control of VOC Emissions from Oil and Natural Gas Sources, IRRC No. 3256

Thank you for the opportunity to comment on the proposed rulemaking. The Pennsylvania Grade Crude Oil Coalition (PGCC) is a nonprofit trade organization that represents conventional oil and gas producers in Pennsylvania. PGCC's members consist entirely of small businesses, many of which are single-employee entities or individual operators. PGCC's mission is to advance local economies and engage in regulatory processes that affect conventional oil and gas development. PGCC's members reside and operate in all of western Pennsylvania. PGCC members are appointed to and sit upon the Pennsylvania Grade Crude Oil Development Advisory Council (CDAC).

Inasmuch as PGCC represents only conventional oil and gas operations, PGCC is uncertain as to the necessity of these comments. Specifically, PGCC is uncertain as to whether the proposed rule applies to conventional oil and gas operations in Pennsylvania. These comments, therefore, will examine the factual and legal bases for uncertainty, describe legal flaws in the rulemaking under the authorizing statutes, offer what specific comments can be made in the context of such uncertainty and failings, and note the absence of considerations for small businesses, which is required under Pennsylvania administrative law and federal environmental law. PGCC respectfully asks that the rulemaking be withdrawn with respect to any impacts on the conventional oil and gas operations.

I. The scope of the regulation is unclear.

Section 7(b) of Act 52 of 2016 provides that: "Any rulemaking concerning conventional oil and gas wells that the Environmental Quality Board undertakes after the effective date of this act shall be undertaken separately and independently of unconventional wells or other subjects and shall include a regulatory analysis form submitted to the Independent Regulatory Review Commission that is restricted to the subject of conventional oil and gas wells."

Taking into account that Act, and examining the plain language of the proposed rule, PGCC concludes that the proposed rule must not apply to conventional oil and gas operations. Specifically, in reviewing the language of the proposed rule, it is clear the proposed rule would have applicability to unconventional wells. It is also clear that there has not been a VOC Emission rulemaking, concerning conventional oil and gas wells, that is separate and independent from the rulemaking that concerns unconventional wells. In other words, the proposed rulemaking is applicable to unconventional wells and by virtue of the statutory mandate contained in section 7(b) of Act 52 of 2016, the proposed rule should not also apply to conventional wells. From this syllogism PGCC concludes that the proposed rulemaking does not, or at least should not, apply to conventional oil and gas wells, according to law.

However, PGCC observes that the proposed rule includes the term “storage vessel” and that the rule states its terms would apply to “storage vessels” (1) “installed at a conventional well site” and (2) that have “the potential to emit 6.0 TPY or greater VOC emissions.” 25 Pa. Code 129.123(a)(1)(i)(proposed).

Thus, even though the foregoing storage vessel language is not contained in a separate and independent rulemaking as described in Act 52 of 2016, the foregoing language would appear to apply to conventional oil and gas wells inasmuch as the rule refers to a “storage vessel” “installed at a conventional well site.”

PGCC has considered the possibility that, even though the foregoing section of the proposed rule refers to a “storage vessel” “at a conventional well site”, the foregoing rule section would not apply to conventional oil and gas well operations if the storage vessel emits less than 6.0 TPY VOC emissions. Whether conventional oil and gas storage vessels do or do not emit less than 6.0 TPY VOC per year is not clear to PGCC at this time. As noted below, neither the proposed rule itself nor the Regulatory Analysis Form (RAF) prepared by the DEP, shed light on what type of conventional oil and gas storage vessels, if any, would be subject to the foregoing provision of the proposed rule.

In addition, at its general member meeting conducted on July 9, 2020, PGCC polled its members in attendance to determine whether any member or members had conducted testing to determine the volume or rate of VOC emissions from conventional oil and gas storage vessels. No PGCC member had performed such testing. Further, PGCC polled its members to determine whether any member had knowledge of the EQB or DEP conducting any testing to determine the volume or rate of VOC emissions from storage vessels used in conventional oil and gas operations. No PGCC member had information concerning any such testing by the EQB or the DEP of any PGCC member’s conventional oil and gas equipment. For these reasons, a reading of the proposed rule leaves PGCC uncertain as to whether the proposed rule is intended to apply to conventional oil and gas wells in Pennsylvania.

The question of the proposed rule’s potential applicability to conventional oil and gas operations appears to be further implicated by language contained in the proposed rule which provides a “fugitive emissions components” requirements that is stated to apply at well sites with a well that “produces, on average, greater than 15 barrels of oil equivalent per day.” 25 Pa. Code 129.127(a)(1) (proposed) The rule does not state an exception for conventional oil and gas wells and, in theory, it is possible that a conventional oil and gas well can produce more than 15 barrels of oil equivalent per day, depending upon numerous factors, including the ratio of oil to gas utilized in order to determine equivalency and including the time period during which the average is measured.

At its general member meeting conducted on July 9, 2020, PGCC polled its members in attendance to determine whether any member operated or owned a conventional well which produces, on average,

greater than 15 barrels of oil equivalent per day. In response to that query PGCC members stated that, in the main, the answer was “no.” However, the members in attendance were unable to provide answers with certainty due to the foregoing questions regarding the ratio utilized to determine “equivalent” and the time period during which the average is measured. Some PGCC members advised that they did not operate or own any wells which produced or were capable of producing 15 barrels of oil equivalent per day at any time. Some members advised that, under certain conditions, newly completed wells might produce greater than 15 barrels of oil equivalent per day for a short period of time (generally meaning days or weeks). However, the PGCC members reporting the possibility of production in excess of 15 barrels per day equivalent cautioned that, in many cases, new wells were connected to common fluid and natural gas collection lines which common lines commingle natural gas and produced fluids from the new well with existing wells, and that such commingled production is not measured at the individual well site but is, instead, measured at a common storage vessel and natural gas meter. Those members went on to report that, therefore it would be difficult to ascertain with certainty the following two things:

- 1) What portion of the fluid and natural gas production was attributable to the new well; and
- 2) What portion of the fluid produced by the new well was water or oil.

For these reasons PGCC is left uncertain as to whether any of Pennsylvania’s conventional oil wells would fall within what the rule intends as the “average” of 15 barrels of oil equivalent per day” and, therefore, and more important, PGCC remains uncertain as to whether the proposed rule applies to conventional oil and gas wells, especially as that latter term is used in the context of Act 52 of 2016.

Additionally, the proposed rule contains reference to, and appears to regulate, other items of equipment which, in some instances, can be utilized in conventional oil and gas operations. According to the RAF these would include items such as “natural gas-driven pneumatic controllers, natural gas-driven diaphragm pumps, centrifugal compressors and reciprocating compressors, and fugitive emission components.” Again, because the DEP previously advised CDAC that the proposed rule was not applicable to conventional oil and gas operations, and because Act 52 of 2016 requires that a conventional oil and gas operations rulemaking be undertaken “separately and independently” from an unconventional oil and gas operations rulemaking, it remains unclear to PGCC, based upon the conflicts between the contents of the proposed rule and applicable law, whether the proposed rule is intended to apply to conventional oil and gas operations in general and to such pieces of conventional oil and gas equipment in particular.

To further understand the scope of the proposed rule, PGCC has turned to the RAF. PGCC first notes that the RAF contains many references to unconventional oil and gas operations. That fact is an additional source of uncertainty inasmuch as Act 52 of 2016 speaks directly to the subject of the RAF. Section 7(b) of the Act provides: “Any rulemaking concerning conventional oil and gas wells that the Environmental Quality Board undertakes after the effective date of this act shall be undertaken separately and independently of unconventional wells or other subjects and shall include a regulatory analysis form submitted to the Independent Regulatory Review Commission that is restricted to the subject of conventional oil and gas wells.” (emphasis added)

Because the RAF deals with the subject of unconventional oil and gas wells, and because Act 52 of 2016 requires that any rulemaking concerning conventional oil and gas wells that the EQB undertakes (after the adoption of the Act in 2016) shall include a regulatory analysis form submitted to the IRRC that is restricted to the subject of conventional oil and gas wells, PGCC concludes that a RAF prepared in

accordance with law would be restricted to the subject of conventional oil and gas wells. Because the RAF submitted by the DEP in conjunction with the proposed rule pertains to the subject of unconventional oil and gas wells, PGCC concludes that the proposed rule does not apply to conventional oil and gas wells.

However, that logic is contradicted by express statements contained in the RAF. For example, at section 16 the RAF answers the following: “List the persons, groups or entities, including small businesses, that will be required to comply with the regulation. Approximate the number that will be required to comply.” The RAF contains this answer:

This proposed rulemaking would apply statewide to owners and operators of one or more of the following oil and natural gas sources of VOC emissions which were in existence on or before the effective date of this rulemaking: storage vessels in all segments except natural gas distribution, natural gas-driven pneumatic controllers, natural gas-driven diaphragm pumps, centrifugal compressors and reciprocating compressors, and fugitive emission components.

The Department identified 5,039 client ID numbers for owners or operators of facilities in this Commonwealth using the Department’s eFACTS database and the NAICS codes covered by the 2016 O&G CTG. These facilities include approximately 89,320 conventional and unconventional oil and natural gas wells, of which the Department estimates that 8,403 unconventional wells and 71,231 conventional wells are currently in production. These facilities also include approximately 435 midstream compressor stations, 120 transmission compressor stations and 10 natural gas processing facilities in this Commonwealth.

The Department estimates that approximately 21 storage vessels, 28,348 pneumatic controllers, and 1,164 pneumatic pumps will have requirements under the proposed rulemaking. Approximately 199 conventional wells and 4,913 unconventional well will be required to implement LDAR or increase the current LDAR frequency under this proposed rulemaking. Approximately 278 midstream compressor stations and 5 processing plants will be required to implement LDAR or meet new requirements under this proposed rulemaking. (emphasis added)

PGCC observes the following things. First, in its answer, the DEP specifically states that “conventional wells” will be required to comply with the regulation. Second, the first paragraph of the answer does not restrict the analysis to unconventional oil and gas operations. Like many other paragraphs contained throughout the RAF, the first sentence of the answer states that the proposed rulemaking would apply to “owners and operators of one or more of the following oil and natural gas sources of VOC emissions...” That first sentence (like many other sections of the RAF), is sufficiently broad so as to include both conventional and unconventional oil and natural gas sources, such as storage vessels.

Therefore, the section of the RAF designed to clarify the groups or entities that will be required to comply with the regulation, does not clarify the question of whether the proposed regulation is intended to apply to conventional oil and gas operations.

That question is greatly compounded by the answer set forth at section 14 of the RAF. Section 14 of the RAF requests the following: “Describe the communications with and solicitation of input from the public, any advisory council/group, small businesses and groups representing small businesses in the development and drafting of the regulation. List the specific persons and/or groups who were involved. (“Small business” is defined in Section 3 of the Regulatory Review Act, Act 76 of 2012.)”

In response the DEP states: “On January 24, 2019, the Department updated the Department of Community and Economic Development’s Pa Grade Crude Development Advisory Council on the status of this proposed rulemaking.”

That “update” gave the Council members (including PGCC members) no warning that the proposed rule would impact the conventional oil and gas industry. The minutes from the January 24, 2019 meeting of the Pa Grade Crude Development Advisory Council (CDAC) state: “Chairman Stewart inquired as to whether the methane rule from the Air Quality Board would impact the conventional industry. Mr. Klapkowski stated that his understanding was that it would not since the conventional wells typically do not cross the thresholds in place for methane emissions, and he agreed to procure additional information for the Council to evaluate.” Those minutes are available at:

<https://dced.pa.gov/download/Meeting%20Minutes%2001-24-19/?wpdmdl=90029>

CDAC met again in May and November 2019 and the DEP did not provide additional information to the Council.

If we return to the answer contained at paragraph 14 of the RAF, the DEP does not state that, at the January 24, 2019 meeting, it updated CDAC with incorrect or incomplete information. Paragraph 14 of the RAF states that, on January 24, 2019, the DEP provided CDAC with the status of the rulemaking. That seems straightforward.

The intent of Section 14 is to ascertain whether there was appropriate “communication” with and “solicitation of input” from any advisory council in the “development and drafting of the regulation.” The exchange provided at Section 14 of the RAF informs that DEP communicated with CDAC and solicited input from CDAC based on the status DEP provided to CDAC.

The status DEP provided to CDAC did not give indication that the proposed regulation would govern conventional oil and gas wells; what DEP did indicate was that DEP would provide additional information for CDAC to evaluate. If that status has changed, in other words, if DEP now intends for the proposed regulation to govern conventional oil and gas operations, PGCC concludes that DEP would have answered Section 14 of the RAF differently. Specifically, at Section 14 of the RAF, the DEP would have said that it gave incorrect or incomplete information at the January 24, 2019 CDAC meeting and that the DEP failed to rectify that incorrect or incomplete status at subsequent CDAC meetings. At Section 14 of the RAF the DEP would have stated that it did not communicate to CDAC the intention that the proposed rule would apply to conventional oil and gas operations, and, in the RAF, the DEP would have noted that “solicitation of input” was not achieved from CDAC relative to the “development and drafting of the regulation.” If the DEP intends that the proposed regulation apply to conventional oil and gas well operations the DEP would not have set forth at Section 14 of the RAF that it had communicated such applicability to CDAC and that the DEP had solicited input, on such applicability, from CDAC.

For this additional reason it is logical for PGCC to conclude that the proposed rule does not apply to conventional oil and gas well operations. Moreover, as noted in greater detail below, if the proposed rule is intended to apply to conventional oil and gas well operations, that fact was not timely communicated, and the solicitation of necessary input was thereby thwarted.

Question as to the scope of the proposed rule is also generated by the additional information provided by DEP at Section 14 of the RAF. In further describing its “communications with and solicitation of input

from the public, any advisory council/group, small businesses and groups,” the DEP stated that it met with “industry and environmental stakeholders.” The DEP specified as follows: “On July 8, 2019, the Department met with industry stakeholders, including representatives from the Marcellus Shale Coalition, Penn Energy, Southwestern Energy, Range Resources, and Chesapeake Energy. On August 27, 2019, the Department met with environmental stakeholders, including representatives from PennFuture, Environmental Defense Fund, and the Clean Air Council.”

That list of industry stakeholders does not include representatives from the conventional oil and gas industry. If the conventional oil and gas industry is to be regulated by the proposed rule and if the DEP has communicated with and solicited input from the conventional oil and gas industry, then the list of industry members with which DEP communicated would include members of the conventional oil and gas industry such as the undersigned PGCC. The list does not. For this additional reason it is logical for PGCC to conclude that the proposed rule does not apply to conventional oil and gas well operations.

If the proposed rule is not intended to apply to conventional oil and gas operations, then the confusion created by references to “conventional” in the proposed rule and RAF, is moot, and PGCC and its members have no reason to comment on the proposed rule.

If, however, the proposed rule is intended to apply to conventional oil and gas operations, a number of procedural and substantive problems are presented. If the proposed rule is intended to apply to conventional oil and gas operations the overarching procedural problem is that the DEP did not follow the steps, required under law, that would inform both the DEP and the conventional oil and gas industry, about the need for, scope of, impact of, and alternatives to the proposed regulation. The DEP’s failure to follow these steps and provide the necessary facts and data corrupts the process, with one of the results of that corruption being PGCC’s inability to make informed comments, which, in turn, prevents the EQB and DEP from making informed decisions.

This problem of the conventional industry being overlooked, when in the presence of its larger cousin, the unconventional oil and gas industry, is not new. Indeed, the DEP’s overlooking of the concerns unique to conventional oil and gas operations was one of the problems intended to be remediated by the passage of Act 52 of 2016.

II. The Board has failed to comply with Act 52 of 2016.

Act 52 of 2016 was adopted after Pennsylvania’s conventional oil and gas industry suffered being overlooked during the development of regulations, at 25 Pa. code Chapter 78, following the passage of the 2012 Oil and Gas Act. While updating the oil and gas regulations to address unconventional well development, the DEP drafted the proposed Chapter 78 regulations in a manner so as to also include Pennsylvania’s conventional oil and gas industry. The conventional oil and gas industry grew increasingly concerned that many of the new requirements – while perhaps appropriate for the unconventional industry – were largely unnecessary, overly burdensome, and excessively costly when applied to the conventional oil and gas industry. Despite complaints by the conventional industry, the DEP proceeded to overhaul regulations applicable to both unconventional and conventional oil and gas activities in a single package. This effort began in earnest with a proposed rulemaking package adopted by the Environmental Quality Board (“EQB”) on December 14, 2013 (at 43 Pa.B. 7377).

When it became clear to the conventional oil and gas industry that the DEP was not going provide relief requested, the conventional oil and gas industry brought the problem to the attention of the

Pennsylvania legislature. The General Assembly responded by conditioning EQB funding on promulgating separate regulations applicable to only conventional oil and gas activities. Act of July 10, 2014 (P.L. 1053, No. 126 (fiscal)). In turn, DEP created the Conventional Oil and Gas Advisory Committee (see 45 Pa.B. 1028) and split the 2013 rulemaking package into two chapters, one applicable to conventional development (Chapter 78) and the other applicable to unconventional development (Chapter 78a). However, although the rulemaking package was bifurcated, the substantive provisions of concern to the conventional oil and gas industry were unchanged, and the “split” rulemaking package proceeded to final rulemaking. See Advance Notice of Final Rulemaking, 45 Pa.B. 1615 (Apr. 4, 2015). The conventional industry observed that the bifurcation did not address the conventional oil and gas industry’s substantive concerns nor did it remediate the procedural problems which had prevented the meaningful input required under law; for those reasons the conventional industry viewed the joint rulemaking process as unlawful.

At its meeting on February 3, 2016, EQB approved the DEP’s final joint rulemaking package for Chapters 78 and 78a. In the meantime, the General Assembly again tried to stop the conventional rulemaking package from proceeding (HB 1327 of 2015), which was vetoed on March 25, 2016. On March 24, 2016, a second conventional oil and gas industry group, the Pennsylvania Independent Oil Producers (“PIPP”), sued PADEP, EQB, the Independent Regulatory Review Commission [IRRC] in Commonwealth Court (Docket No. 219 M.D. 2016) to stop the joint rulemaking package from becoming final. The petition was denied on April 15, 2016 on ripeness grounds.

The conventional industry, by efforts of PIPP, PGCC, and a third trade group, PIOGA, continued to articulate, to the legislature, the differences between Pennsylvania’s conventional and unconventional oil and gas operations, and the need for separate regulatory frameworks for the two industries. On June 15, 2016, the General Assembly passed SB 279 (2015 Session), which did two things: 1) created the Pennsylvania Grade Crude Development Advisory Council (CDAC); and 2) abrogated the conventional rulemaking package, and mandated that “any rulemaking concerning conventional oil and gas wells that the [EQB] undertakes after the effective date of this act shall be undertaken separately and independently of unconventional wells or other subjects and shall include a regulatory analysis form submitted to [IRRC] that is restricted to the subject of conventional oil and gas wells.” SB 279 was signed into law by Governor Wolf on June 23, 2016 (Act 52 of 2016), effectively stopping the Chapter 78 final joint rulemaking package, at least as it pertained to the conventional oil and gas industry. DEP eventually concluded that it could proceed with the unconventional rulemaking portion of the package (Chapter 78a), which became effective on October 8, 2016 (at 46 Pa.B. 6431).

From that history, but especially from the plain language of Act 52 of 2016, it is clear that the legislature recognizes Pennsylvania’s conventional and unconventional oil and gas operations as two separate industries and that the legislature has mandated a separate regulatory framework for each of the two industries.

Yet, despite that history, the DEP has, in the proposed rulemaking, failed to create a separate regulatory framework for conventional oil and gas operations (if it is the intention of the DEP that the proposed rule apply to conventional oil and gas operations). The DEP failure results in the same problem recounted in the Chapter 78 saga: concerns unique to the conventional industry were not considered or even discovered because necessary interface with and consideration of the conventional oil and gas industry, and its unique concerns, did not occur.

The procedural failure to treat the conventional industry via a separate regulatory framework and the consequential failure to properly interface with the industry, has corrupted the rulemaking process, at least to the extent the process purports to relate to the conventional oil and gas well industry. That corruption is a bell that cannot be unrung no matter what comments PGCC submits today and no matter what response DEP might provide to those comments. Indeed, the substantive comments PGCC submits, below, are necessarily handicapped because PGCC lacks the benefit of interface with DEP to understand the applicability of the proposed rule, its scope, what conditions DEP assumed to arrive at cost estimates, what data, if any, DEP has assembled relative to conventional oil and gas industry emissions, and the like, and DEP lacks the interface with the industry to have appropriately discussed need, costs, prevailing conditions, data, alternatives and the like.

III. The Board has failed its obligations under the federal and state environmental statutes.

Assuming that the proposed rule applies to conventional oil and gas operations even though the EQB failed to adhere to requirements in section 7(b) of Act 52 of 2016, PGCC notes that there are additional legal flaws with the proposed rule based on the EQB's failure to distinguish conventional from unconventional oil and gas operations in the proposed rule's requirements and the rulemaking record.

A. The Board fails to demonstrate that proposed rule's requirements are RACT for conventional operators under the Clean Air Act.

The EQB cites section 5(a)(8) of Pennsylvania's Air Pollution Control Act as authority for the proposed rule. 35 P.S. § 4005(a)(8). Section 5(a)(8) of the APCA grants the EQB authority "to adopt rules to implement the provisions of the Clean Air Act," and requires such rules to be "consistent with the requirements of the Clean Air Act." The Clean Air Act ("CAA") requires each State with a moderate ozone nonattainment area or within the northeast ozone transport region to submit revisions to its State Implementation Plan ("SIP") to implement "reasonably available control technology" ("RACT") for sources of volatile organic compounds ("VOCs") that are covered by a control technique guideline document ("CTG"). See 42 U.S.C. §§ 7511a(b)(2) and 7511c(b). Because EPA issued a CTG that covers existing oil and gas sources in 2016, the CAA requires Pennsylvania's SIP to be revised to impose RACT on sources covered by the CTG.

By its plain terms, however, the CAA does not require an affected State to adopt EPA's CTG-recommended RACT wholesale, much less make EPA's CTG-recommended RACT more stringent, as the EQB proposes to do here.

A CTG includes EPA's recommended RACT for covered sources; it is not a set of "one size fits all" requirements. Rather, EPA recognizes that RACT for a "particular source is determined on a case-by-case basis, considering the technological and economic circumstances of the individual source," with "significant weight [given] to economic efficiency and relative cost-effectiveness." U.S. EPA, Office of Air Quality Planning and Standards, *Implementing Reasonably Available Control Technology Requirements for Sources Covered by the 2016 Control Techniques Guidelines for the Oil and Natural Gas Industry* (Oct. 20, 2016). EPA acknowledges that air agencies are free to adopt alternative RACT rules if the CTG-recommended RACT is "not technologically and economically feasible due to particular circumstances of a specific source (e.g., considering the cost-effectiveness of the control when the VOC content of the gas is very low)." *Id.*

Despite fundamental differences in the (1) production processes, (2) sizes and scales, (3) emission points and rates, and (4) the pressures and VOC content of gases managed by the conventional oil and gas industry on the one hand, and the unconventional oil and gas industry on the other, the EQB proposes to adopt (and make more stringent) EPA's CTG-recommended RACT and apply it to both conventional and unconventional operators. The EQB's failure to distinguish conventional from unconventional operations in the proposed rule may be the product of a fundamental misunderstanding of the CAA requirements that apply to States when U.S. EPA issues CTGs.

Here, the proposed rule and record are devoid of any analysis of the technological and economic feasibility of implementing EPA's CTG-recommended RACT at conventional operations. While the "anticipated costs" per ton of implementing the proposed rule's requirements are listed in the RAF, the EQB appears to have adopted, without analysis, EPA's cost estimates from the CTG. RAF, p. 26, 29. The EQB ignores or overlooks its responsibility to evaluate the technological and economic feasibility of applying the proposed VOC RACT rule to conventional operators. Simply put, a technical feasibility and cost-effectiveness analysis must be performed before any VOC RACT rule can be proposed for conventional oil and gas operators.

B. The proposed rule is an improper exercise of the Board's authority under section 5(a)(1) of the APCA.

The EQB's reliance on section 5(a)(1) of the APCA as the authority for the proposed rule is similarly flawed. Section 5(a)(1) of the APCA grants the EQB authority to "adopt rules and regulations, for the prevention, control, reduction and abatement of air pollution." 35 P.S. § 4005(a)(1). This same section gives the EQB authority to "regulate any process or source or class of processes or sources" in such rules and regulations. *Id.*

Contrary to what the EQB proposes now, the APCA expressly grants EQB the authority to treat classes of sources differently. This includes the different classes or categories of operations within the broader oil and gas industry, namely the conventional oil and gas industry on the one hand, and the unconventional oil and gas industry on the other. The EQB's failure to differentiate between conventional and unconventional oil and gas operations in the proposed rule itself, and throughout the process for developing the proposed rule, is an improper exercise of the EQB's authority under section 5(a)(1) of the APCA. It is also inconsistent with recent actions the DEP has taken to regulate air emissions from both conventional and unconventional operations.

As the DEP did in in 2018 when it revised the *Air Permit Exemptions* list, revised GP-5, and issued GP-5A, the EQB must regulate VOC emissions from conventional and unconventional operations differently. In 2018, the DEP unconditionally exempted conventional well sites from air permitting requirements. Notably, the DEP did so after receiving comments pointing to the significant differences between emissions and sources at conventional and unconventional well sites, *e.g.*, the differences in scale and duration of the post-stimulation flowback periods, arrangement of compressors and storage tanks on or near well sites, and pressures of the gas in the wellheads.

Departing from the DEP's recent air permitting actions, and commingling the regulatory requirements for conventional operations with those of unconventional operators, is a misuse and abuse of the EQB's authority under the APCA.

With these flaws and limitations in mind, and always with the question as to whether the DEP even intends the proposed rule to apply to conventional oil and gas operations, PGCC offers the more specific comments below. By offering the specific comments below, PGCC does not intend to admit that it has the necessary understanding of the proposed rule to provide fully informed comment.

IV. The need for additional regulations for conventional oil and gas operations has not been demonstrated.

The RAF sets forth the benefits of reduced VOC emissions: “(reduction) 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.”

What is Pennsylvania’s conventional natural gas production from which the new regulations seek to reduce emissions? Pennsylvania’s conventional industry is not Pennsylvania’s major contributor of natural gas. Per the DEP 2019 conventional oil and gas production reporting, Pennsylvania’s conventional industry produced 163,508,932 mcf of natural gas, in all of 2019; that translates to 447,969 mcf, or roughly ½ million mcf per day. In comparison, Pennsylvania’s major gas contributor, the unconventional industry, produced 601,926,903 mcf in December 2019. This translates to 19,416,997 mcf, or roughly 20 million mcf, per day. Stated another way, Pennsylvania’s conventional oil and gas industry produces 1/40 of the amount of natural gas produced by Pennsylvania’s unconventional industry.

Whatever need might be represented in the RAF, the fact prevails that Pennsylvania’s conventional oil and gas industry is a very minor contributor to the supply of natural gas in Pennsylvania. Reduction of emissions from the conventional oil and gas industry is, therefore, destined to have a minimal impact on emissions. In other words, Pennsylvania’s conventional oil and gas industry does not have the horsepower to contribute significantly to any need.

With that limitation in mind, what are the specifics of the needs cited in the RAF? Unfortunately, such detail is entirely lacking as to the conventional oil and gas industry. The RAF contains generalizations to the effect that ozone can have negative impact upon agriculture and upon human health. The closest the RAF comes to evidence of harm, to either, is the observation that “the economic value of crop yield loss due to high concentration of ground-level ozone can be calculated from both reduced seed production and visible injury to some leaf crops, including lettuce, spinach and tobacco, as well as visible injury to ornamental plants, including grass, flowers and shrubs.”

Remarkably, nowhere does the RAF tie any of the generalized harms, or even the sparse specific observations such as “leaf crop injury,” to emissions from conventional oil and gas operations. This omission is significant because Pennsylvania’s conventional oil and gas industry has been present in Pennsylvania for over a century and a half. Pennsylvania’s conventional industry’s long production history would, for a lack of a better term, be a baseline of emissions impact from which empirical observations would yield the type of scientific data that is supposed to be contained in an RAF.

The advent of the unconventional oil and gas industry in Pennsylvania in the last ten years, and the remarkable growth of unconventional natural gas production, would provide opportunity to make empirical observations of natural gas emission impacts. Indeed, the “baseline” of the conventional oil and gas industry, compared to the dramatic difference represented by 40 x’s greater natural gas

production by the unconventional oil and gas industry, is an obvious difference and opportunity to understand emissions in relative terms between the two industries. From that understanding could flow the kind of data that is supposed to be contained in an RAF concerning need. As to the conventional oil and gas industry such data is entirely absent.

Indeed, the RAF goes on at some length about the impact of emissions on forests. This might suggest that the DEP is aware of some adverse impact that conventional oil and gas emissions is yielding upon the forests of the Commonwealth. Such data would support the need for new regulations upon the conventional oil and gas industry.

Concerning forests and need, here is what the RAF states:

This Commonwealth is forested over a total of 16.8 million acres, which represents 58% of its land area. Federal, state, and local government hold 5.1 million acres in public ownership, with the remaining 11.7 million acres in private ownership.² The forest product industry only owns 0.4 million acres of forest, with the remainder held by an estimated 750,000 individuals, families, partnerships, or corporations.³ This Commonwealth leads the Nation in volume of hardwood with over 120.5 billion board feet of standing sawtimber.⁴ Recent data shows that the state's forest growth-to-harvest rate is better than 2 to 1.5. As the leading producer of hardwood lumber in the United States, this Commonwealth also leads in the export of hardwood lumber, exporting nearly \$560 million in 2017, and over \$1.3 billion in lumber, logs, furniture and paper products to more than 70 countries around the world. Production is estimated at 1 billion board feet of lumber annually.⁶ This vast renewable resource puts the hardwoods industry at the forefront of manufacturing in this Commonwealth. Forestry production and processing account for 64,515 direct jobs and \$27.7 billion in direct economic output and direct value added to Pennsylvania's economy.⁷ Reducing ground-level ozone concentrations will serve to protect the Commonwealth's position as the leader of growing volume of hardwood species and producer of hardwood lumber in Nation.

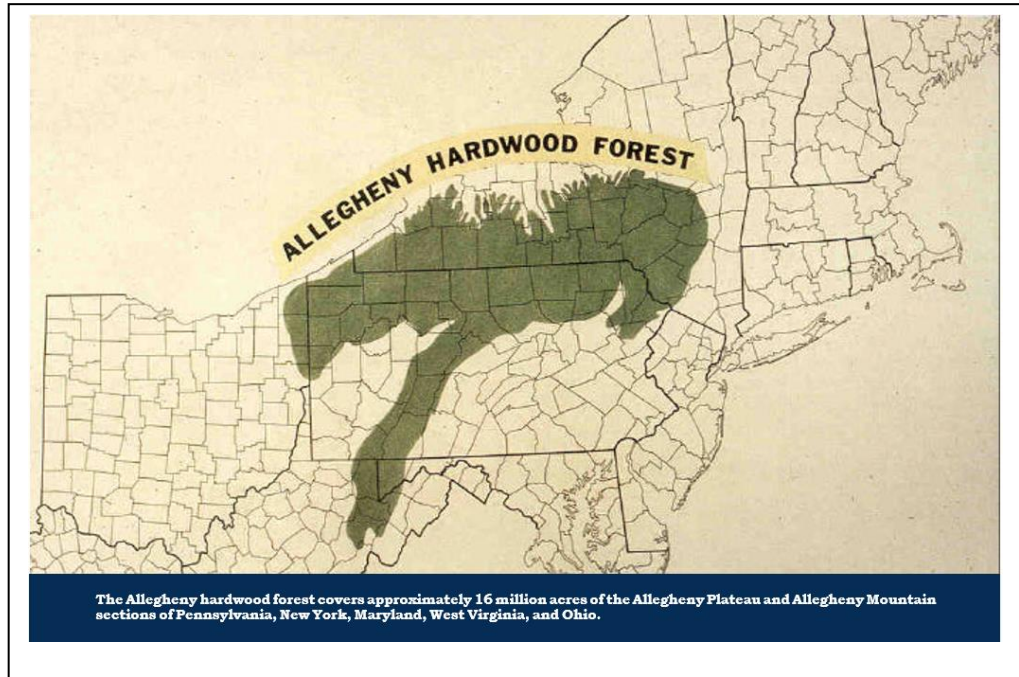
This RAF statement is not data that supports the need for new regulations imposed upon the conventional oil and gas industry. This RAF commentary is rank speculation that, somehow, there may be a connection, of some sort, maybe bad, between emissions and the hardwoods industry. In fact, the conventional oil and gas industry isn't even specifically mentioned within this chamber of speculation.

What is the value of such rank speculation in the RAF? And does the DEP need to speculate? Or instead, is there not a way for the DEP to examine whether there is a connection between Pennsylvania's conventional oil and gas industry and a potential threat to Pennsylvania's hardwoods? In other words, is there not a way for the DEP to measure the "need" for new regulations upon the conventional oil and gas industry because emissions from that industry are or are not harming hardwoods?

While the unconventional oil and gas industry is relatively new to Pennsylvania, the conventional oil and gas industry has been present in Pennsylvania for a century and a half. Much of the conventional industry's activity has occurred in the heart of the Commonwealth's prime forests. It is not necessary to speculate about the impact of VOC emissions, from the conventional oil and gas industry, upon the Commonwealth's forests. Instead, where the conventional oil and gas industry is active, the health of

the surrounding forests is instructive as to the above forest concerns, expressed by the DEP, in the “needs” section of the RAF.

Pennsylvania’s most valuable forest, the Allegheny Hardwood Forest is located coterminous with some of the most intensive conventional oil and gas activity in the Commonwealth.



According to a publication by the USDA Kane Experimental Forest:

The area occupied by Allegheny hardwoods is a heavily forested region. It is one of the major contiguous blocks of commercial forest land in the Northeast. Forests in the Allegheny Plateau region include the half-million-acre Allegheny National Forest, several districts from Pennsylvania’s 2.1-million-acre State Forest System, several gamelands managed by the Pennsylvania Game Commission, municipal watersheds, hundreds of thousands of acres of industrially owned forest, and a similar acreage of non-industrial private forest. All of these forests are used for a variety of purposes, including timber production, wildlife habitat, outdoor recreation, and watershed management. They are important for conservation of biological diversity, for safeguarding the region’s water supply, and for providing people with the experience of large blocks of contiguous working forest.

https://www.fs.fed.us/ne/newtown_square/publications/brochures/pdfs/experimental_forests/kane.pdf

The portion of the Allegheny Hardwoods Forest occupied by the Allegheny National Forest (ANF) is a prime area to examine the need for regulation of VOC emissions for the conventional oil and gas industry. According to the ANF Land and Resource Management Plan the ANF is comprised of 517,000 acres, situate in Warren, Forest, Elk and McKean Counties. Those four counties also happen to be in the heart of Pennsylvania’s most intensive conventional oil and gas activity, and according to the ANF, there are over 8000 active conventional oil and gas wells located upon the ANF. 8000 conventional oil and gas

wells is a highly representative sample inasmuch as 8000 wells is over 12% of the number of conventional wells for which production is reported in Pennsylvania.

In its Land and Resource Management Plan the ANF describes the enviable environmental conditions which exist in the ANF:

(The Northern Forest Hardwood Type) includes Allegheny hardwood, oak and aspen forest types that require open forest canopies and/or burning for their regeneration and growth. Eastern hemlocks and other conifer species are well distributed throughout the ANF to provide wildlife cover. A diversity of forest structural stages exists across the landscape. The current even-aged forest dominated by trees 90 to 110 years old transitions to one with a much greater share of old, larger trees along with an increased amount of younger structural stages. Snags and large down wood are present throughout the ANF and provide important habitat for plants and animals.

The ANF contains both vertical and horizontal vegetative diversity: an understory of plants, woody shrubs, and tree seedlings; a midstory of tree saplings and an overstory of large mature trees provide a complete vertical structure that supports a variety of mammals, birds, invertebrates, reptiles and amphibians. Large blocks of contiguous and connected mature forest provide habitat for raptors, timber rattlesnakes, northern flying squirrels, and wood turtles. Maintained openings and early structural habitat created through timber harvest add important habitat components. Habitat conditions on the ANF contribute to the recovery of threatened and endangered species. This diversity of vegetative communities increases the resiliency of the forest ecosystem to withstand threats from insects or diseases, fire, wind, or other major disturbances.

Aquatic and riparian ecosystems are primarily free-flowing with some impoundments for recreation and wildlife. Riparian dependent vegetation, animals and their habitats, such as seeps, springs, vernal ponds and other unique areas are conserved. A majority of cold water streams provide suitable habitat and water quality for aquatic species including the propagation of brook trout and other headwater species. Allegheny River flows are maintained at levels necessary to support viable populations of freshwater mussels, fish and other aquatic species.

Aquatic conditions on the ANF contribute to the recovery of the northern riffleshell and clubshell mussels. Air, soil and water resources provide for watershed health, public health and safety, long-term productivity and ecosystem sustainability. The ANF continues to provide quality water to the municipalities of Ridgway and Bradford, as well as a variety of users who obtain their water directly from sources originating on the ANF.

USDA, *ANF Record of Decision for Final Environmental Impact Statement and Land and Resource Management Plan* (March 2007) ("*Land and Resource Management Plan*"), p. 23, available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5044088.pdf.

While the Land and Resource Management Plan lists various threats to the health of the ANF including beech bark disease, hemlock woolly adelgid, and sugar maple decline, the Land and Resource Management Plan does not identify emissions from the thousands of conventional oil and gas wells, located upon the ANF, as a threat to the ANF in general or a threat to any particular habitat or species located upon the ANF.

Moreover, the ANF story is one of a forest which has blossomed contemporaneously with heavy conventional oil and gas activity upon the ANF. The Land and Resource Management Plan notes that when the ANF was created in 1923, the ANF was a biological wasteland: “the once extensive forest was almost completely logged, leaving barren, brush covered hillsides as far as the eye could see. Deer and their predators were almost completely eliminated due to unregulated hunting and loss of habitat.” *Land and Resource Management Plan*, p. 21. The dense forest that we see today has grown in conjunction with the conventional oil and gas activity that results in 8000 conventional oil and gas wells situate upon that forest.

The ANF is a heavily monitored habitat. Indeed, it is home to the USDA Kane Experimental Forest in which there are numerous conventional oil and gas wells. The ANF a prime laboratory in which to measure the need for whether additional regulations should be imposed upon Pennsylvania’s conventional oil and gas industry to address the concerns articulated by the DEP, in the RAF, regarding the impact of emissions upon vegetation. That laboratory result does not point to any need.

The failure to demonstrate need is not limited to the ANF region. The RAF is silent about need, as evidenced by forest health, anywhere in Pennsylvania. If emissions are resulting in declining forest health, the RAF should cite that evidence as the basis for need. However, what the RAF actually says about all Pennsylvania forests is that they are thriving. The RAF cites the growth to harvest ratio of all Pennsylvania forests as being in excess of 2:1. A positive ratio means that Pennsylvania’s forests are growing more timber than is being harvested. Below is the most recent USDA data for Pennsylvania. The timber amount grown (719,750,863) exceeds the amount harvested (310,206,446) by a factor greater than 2 to 1. The data does not support the need for new regulations—certainly not the need for regulations upon an industry that contributes 1/40th of the natural gas produced in the Commonwealth.

Current forest estimates (coincide with graph below)

Pennsylvania

Estimate	Value (State proportion within map %)
Forest land:	16,753,784 (9.2%)
Number live trees:	8,004,790,472 (6.6%)
Number of standing dead trees:	272,957,094 (8.43)
Aboveground live biomass:	1,111,513,653 (12.1%)
Aboveground live carbon:	555,756,826 (12.1%)
Net live volume:	39,187,046,805 (11.5%)
Net volume sawtimber (Intl. 1/4-rule board feet):	128,099,554,950 (12.61)
Net growth volume:	719,750,863 (10.8%)
Mortality volume:	412,911,131 (9.6%)
Harvest removals volume:	310,206,446 (9.5%)
Other removals volume:	10,695,743 (4.9%)
Net growth to total removals ratio:	2.2
Net growth to harvest removals ratio:	2.3
Net growth to volume percent:	1.8
Total removals to volume percent:	0.8
Mortality to volume percent:	1.1

*Estimates are based on trees at least 1- (number live, biomass and carbon) and 5-inches (volumes and motality trees) in diameter.

<https://public.tableau.com/views/NRS-FIAAnnualReport/ForestIntroduction?:showVizHome=no>

Continuing the examination of whether there is need to enact new conventional oil and gas regulations, it is observed that the RAF states that a minimal number of conventional wells will be impacted by the new regulations. The RAF cites that 71,229 conventional wells are currently reporting production in Pennsylvania. The RAF does not speculate how many additional conventional wells are not reporting production. However, the DEP database currently reports 128,485 “active” wells in Pennsylvania, of which “11,867” are reported as unconventional, leaving 116,618 active conventional oil and gas wells.

The RAF cites that of those many conventional oil and gas wells, approximately 199 conventional wells will be required to implement LDAR under the proposed rulemaking. Elsewhere the RAF cites that of the 71,229 conventional wells reporting production, only 303 are above the 15 barrel of oil equivalent per day production threshold as reported in the Department’s 2017 oil and gas production database and will have fugitive emissions component requirements. These are the only specific references contained, in the RAF, as to the number of conventional oil and gas wells that will be impacted by the proposed regulations.

That said, how do such numbers justify a need? Of over 116,000 active conventional wells, two or three hundred conventional wells represents less than one-third of one percent. The conventional industry generates less than 1/40th of the natural gas that is the potential emitter. Therefore, the proposed regulation would subject an entire industry (the entire conventional oil and gas industry) to the burden of a new regulation, to gain the benefit of reducing emissions from up to 1/3 of one percent the wells which produce 1/40th of the natural gas in Pennsylvania. That is a stunningly unimpressive quantitative statement of need.

How would such regulation translate to emissions? The RAF states:

The Department estimates that implementation of the proposed control measures could reduce VOC emissions by as much as 983 TPY from fugitive emissions components through the performance of quarterly LDAR inspections, by as much as 121 TPY from the installation of controls for storage vessels with actual emissions based on the Department’s more stringent applicability thresholds, 109 TPY from pneumatic pumps and 3,191 TPY from pneumatic controllers. As noted above, these reductions would benefit the health and welfare of all Pennsylvania residents.

Here the RAF fails, remarkably, to articulate the positive benefit that would be yielded by imposing the new regulation upon the conventional oil and gas industry. How many TPY would be removed by regulation that impacts 300 of the 116,000 active conventional oil and gas wells? By the DEP’s own data, not much. Per the DEP’s data, the average production from an unconventional well is 1,636 mcf per day (19,416,997 mcf per day divided by 11,867 wells). The average production from a conventional well is 6 mcf per day (447,969 mcf per day divided by 71,229 conventional wells reporting production). Thus, the average unconventional well produces 272 times more natural gas per day than the average conventional well. Clearly, reducing emissions from two or three hundred conventional wells is going to have infinitesimal impact. Indeed, if we employ the average data, the imposition of a new regulatory scheme upon the entire conventional industry would have the same impact as regulating ONE average unconventional oil and gas well.

How does an infinitesimal impact justify need? It does not.

V. The costs of implementation have not been properly analyzed.

The conventional industry is gravely concerned about the DEP's failure to interface with the conventional industry concerning the costs of implementation. That failure leaves many unanswered questions, which greatly handicaps the conventional industry's ability to comment upon the subject of costs.

That said, some general comments can be made. The RAF predicts an annual cost of \$4,220 to implement a quarterly LDAR program. The conventional oil and gas industry is not familiar with the required steps, equipment used in, or training required for, an LDAR program. Based upon the polling done at the PGCC July 9, 2020 general member meeting, no PGCC member owns or has utilized LDAR equipment. Therefore, the cost to obtain the equipment and the cost to be trained to utilize the equipment would all be costs new to the conventional industry.

This is in distinct contrast to the DEP assumption articulated in the RAF, that most industry members are already performing quarterly LDAR inspections. That RAF statement is quite possibly true as to members of the unconventional oil and gas industry. The DEP's overlooking of the conventional industry is, of course, another example of the hazards of the DEP's failure to follow the legislative direction contained in Act 52 of 2016, to prepare a regulatory analysis form "that is restricted to the subject of conventional oil and gas wells."

The DEP's failure to interface with the conventional industry also leads to concern about what wells and equipment will be subject to the quarterly LDAR inspection requirements, and the remediation that will be required if certain levels of emissions are found. The rule appears to impose the inspection obligation upon numerous facilities, some of which can exist in conventional oil and gas operations. The rule addresses: wells, natural gas-driven pneumatic controllers, natural gas-driven diaphragm pumps, centrifugal compressors and reciprocating compressors, and fugitive emission components. This portion of the rule appears to exclude wells which produce less than an average of 15 barrels equivalent per day.

Numerous questions prevail. For example, are all compressors used in conventional oil and gas well operations subject to the proposed rule? How will the DEP regard conventional well production, which is commingled in common collection lines and storage vessels? Specifically, will any aspect of the collective production be the measuring stick for the applicability of the proposed regulation, or will the measuring stick be constrained to single wells, even though in many conventional operations production from single wells is estimated because of the commingling? What accounts for the seeming conflict in numbers set forth by the DEP, both in the RAF and in an accompanying DEP Power Point presentation made available on the EQB website, wherein the DEP estimates that "approximately 71,229 conventional wells, 8,403 unconventional wells, 435 midstream compressor stations, 120 transmission stations, and 10 natural gas processing plants may have sources that will be affected by this proposed rulemaking;" yet at other places in those documents, the DEP estimates that only 200 or 300 conventional wells will be affected by the proposed rulemaking. If the DEP estimates that only 435 midstream compressor stations will be affected by the proposed rulemaking, is the DEP communicating that compressors used in conventional oil and gas operations that are not midstream units are not affected by the proposed rulemaking; that such compressors used in the conventional oil and gas operations will be affected by the proposed rulemaking but that the DEP was unable to provide an estimate as to the number of such compressors; or is the DEP intending to communicate something else?

To restate the concern in its simplest form:

- 1) Who will have to test?
- 2) How many things will they have to test?

Perhaps in some circles these conventional industry questions are viewed as unreasonable pushback. From the perspective of PGCC however, it is not unreasonable, after being left in the dark, to then be fearful of the unknown.

The fear of the unknown is bad enough in any context. But it is supremely frightening in the Covid-19 context that prevails in 2020. The conventional oil and gas industry has been ravaged by the energy demand destruction wrought by Covid-19. Layoffs and business closures in the conventional oil and gas industry have been rampant. Oil and natural gas storage inventories are obscenely high. Even when the world economy begins to regain its footing, the conventional oil and gas industry will not enjoy recovery; that recovery will have to wait until world inventories of stored oil and natural gas are whittled down.

Meantime, finding \$4,220 to implement a new testing program will be impossible. \$4,220 used to be 40 barrels of oil. Now it's 100. And what does that \$4,220 represent? Is that the cost of the testing machine? Or is that the cost of a testing machine amortized across a large number of wells or compressors? If the latter, how does a mom and pop oil producer, who owns five wells and one compressor, afford a testing machine? And does that \$4,220 include the costs of training and record keeping? And what are those costs? Does the machine have to be calibrated?

Separate, but related, are questions about the remediation. What remediation is required? What emission standard must be achieved by the remediation? Who is responsible for testing that achievement? What record keeping is required? What are the estimated costs of remediation and record keeping?

All of these and numerous other questions are unknowns. They are unknowns because the DEP did not interface with the conventional oil and gas industry.

But all of that fear is secondary to the fear generated by the silence in the RAF about the impact of the proposed rule for routing emissions, that exceed 6.0 TPY, from a storage vessel. The annual cost estimate for that accommodation is \$25,194 per year per storage vessel. The conventional oil and gas industry has tens of thousands of storage vessels.

The logical question is, how many of those thousands of storage vessels will be impacted by the new regulation? In other words, in how many instances will the conventional oil and gas industry be expected to bear the impossibly huge sum of \$25,194?

Here is the remarkable thing. The RAF doesn't say.

There is not a single estimate in the RAF of how many conventional oil and gas storage vessels will have to be accommodated. The purpose of the RAF is to inform about that very thing. Yet the RAF is frighteningly silent.

Once the rule goes into effect it becomes, frankly, the rule. Before that happens, the entity that makes the rule should know whether it's likely to be 1 storage vessel or 20,000 storage vessels that will fall within the parameters of the rule; certainly, the industry members that are expected to comply with the rule are entitled to know.

If the DEP were willing to interface to provide answers to that fundamental question, there would be a forum to discuss other highly relevant questions:

- 1) Does the \$25,194 assume the operator has access to electricity at the storage vessel to power the re-routing device? If "yes", the DEP should be informed that there is not electricity at many conventional oil and gas storage vessel sites.
- 2) If electricity is required and is not present, what alternatives can be employed?
- 3) If an electricity alternative involves a generator, how are the emissions from the generator factored into the benefits and costs analyses?
- 4) What if a group of wells is served by a single storage vessel? Will the 6.0 TPY be adjusted upward to account for the number of wells served?
- 5) How is the testing conducted to ascertain whether the 6.0 TPY threshold is implicated?
 - a. Will every storage vessel need to be tested?
 - b. Must an outside contractor be employed to test?
 - c. Must the tester be certified?
 - d. How much does a testing device cost?
 - e. How many man hours are required to perform a test?
 - f. What training is required?
 - g. What record keeping is involved?
- 6) What factors are considered in realizing an average?

Again, these are but some of the questions that generate the fear of the unknown, and that the RAF is intended to answer and allay. That interface has not happened. Instead the process has been corrupted by the DEP's failure to follow the very process designed to provide information and conquer the unknown. Because of that failure, PGCC is unable to provide informed comment, IRRC is unable to evaluate the regulation, and the legislative oversight committees are unable to provide the intended input to the regulatory process.

VI. The proposed rulemaking entirely lacks small business considerations.

As part of the process of promulgating the proposed regulations the DEP is required to provide a regulatory flexibility analysis and to consider various methods of reducing the impact of the proposed regulation on small business. Specifically, the Regulatory Review Act, at Sections 5(a)(12.1) and 5.2(b)(8), requires consideration of 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.

The vast majority of conventional oil and gas operators, and indeed, all of PGCC's members, are small businesses. The proposed regulations do not contain any accommodation for small business. Such omission, therefore, fails to comply with the obligations imposed under the Regulatory Review Act and greatly impacts PGCC members.

The omission also reveals the fatal procedural oversights which have poisoned the process. The DEP's failure to separately examine the needs presented by the conventional oil and gas industry renders it impossible to consider whether, for example, less stringent alternatives meet a legitimate regulatory need. Similarly, it is impossible to analyze or comment upon whether alternative performance or operational standards will meet a legitimate regulatory need when the regulatory agency fails to state the data, unique to the conventional oil and gas industry, that underlies the regulatory need.

To facilitate meaningful comment on small business alternatives, such alternatives needed to be introduced by the regulatory agency long ago. In that way, commenting bodies such as PGCC could have retained experts or utilized the expertise of its own members to gather data and to consider alternatives unique to the conditions of the conventional oil and gas industry.

One example of a potential alternative is the plugging of orphan wells. The DEP currently holds an inventory of approximately 10,000 such wells, and one of the problems associated with such wells is their potential for unchecked release of methane to the atmosphere. The conventional oil and gas industry is uniquely poised with the equipment and skilled personnel to plug orphan wells.

The implementation of the proposed rule will impose upon small business owners' costs in the form of testing and accommodations. It may well be that, in the context of the potentially small emissions yielded by conventional oil and gas wells, such costs will yield little environmental benefit. A more meaningful alternative, having potentially greater environmental benefit, might be to plug an orphan well, in lieu of the implementation of the testing and accommodations called for under the proposed rule.

It is, however, impossible to assess the viability of such alternative because the RAF does not contain the data and analysis necessary to meaningfully implement Sections 5(a)(12.1) and 5.2(b)(8) of the Regulatory Review Act, nor does the RAF contain the data and analysis necessary to allow PGCC to meaningfully comment on this alternative in particular or on small business alternatives in general. In other words, the orphan well plugging alternative may or may not be meaningful, and there may or may not be more alternatives that meet the dictates of the Regulatory Review Act. However, that answer cannot be known, because the process and outcome contemplated under Act 52 and the Regulatory Review Act is not achieved until the DEP meets: its obligation to treat the conventional oil and gas industry separately; its duty to consult with the industry; its duty to provide data meaningful to that industry; its duty to assess the need relative to that industry; and its duty to provide for meaningful comment and exchange that results in the consensus contemplated in the Regulatory Review Act.



PA Orphan Well emitting unchecked methane (methane lit in order to depict)

VII. Conclusion.

PGCC appreciates the opportunity to comment on the proposed VOC rule but believes that the rulemaking cannot legally apply to conventional oil and gas operations in Pennsylvania. The Board should revise the rule to clarify the scope and to remove any ambiguity regarding applicability to conventional oil and gas operations.

Sincerely,

A handwritten signature in blue ink that reads "David Clark". The signature is written in a cursive, flowing style.

David Clark, President

CC: The Honorable Gene Yaw
The Honorable Daryl D. Metcalfe

July 27, 2020

Submitted by e-mail to ecomment@pa.gov

Policy Office
Department of Environmental Protection
Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063

Re: Comments on Proposed Rule “Control of VOC Emissions from Oil and Natural Gas Sources” (#7-544), IRRC # 3256

COMMENTS OF
THE PENNSYLVANIA INDEPENDENT OIL & GAS ASSOCIATION

The Pennsylvania Independent Oil & Gas Association (PIOGA) respectfully submits the following comments regarding the Pennsylvania Environmental Quality Board (EQB) Notice published in the Pennsylvania Bulletin on May 23, 2020. The Notice solicits public comments on the proposed rule “Control of Volatile Organic Compound (VOC) Emissions from Oil and Natural Gas Sources.”

PIOGA is a nonprofit trade association, with nearly 400 members, representing Pennsylvania independent oil and natural gas producers, both conventional and unconventional, as well as marketers, service companies and related businesses, landowners and royalty owners. PIOGA members are subject to provisions of the Clean Air Act (CAA), the Pennsylvania Air Pollution Control Act, the Pennsylvania Oil and Gas Act (Act 13 of 2012, Chapter 32), the Pennsylvania Clean Streams Law, and other environmental statutes and implementing regulations relevant to oil and gas operations in Pennsylvania. The Association and our members, therefore, have a direct interest in the proposed rule “Control of VOC Emissions from Oil and Natural Gas Sources” (CTG O&G Rule).

While many PIOGA members are companies that engage in large volume hydraulic fracturing with horizontal legs (i.e., unconventional drilling) in organic shale formations, a predominant portion of our membership is comprised of smaller, family run operations that engage in some form of hydraulic fracturing, involving vertical wells without horizontal legs in non-shale formations, referred to as conventional oil or gas wells. In addition, development of oil and gas resources within the Commonwealth has been on-going for well over 130 years, as acknowledged by EQB’s recognition that there are over 71,000 known existing conventional wells in operation in Pennsylvania.

Many of our members are small businesses under the Small Business Regulatory Enforcement Fairness Act of 1996. PIOGA emphasizes that the imposition of the “one-size-fits-all” regulatory

approach proposed by the CTG O&G Rule for existing conventional and unconventional oil and gas operations in Pennsylvania, which blindly reflects the recommendations of the U.S. Environmental Protection Agency (EPA) 2016 document “Control Techniques Guidelines for the Oil and Natural Gas Industry”¹ (“CTGs”), is: a) inappropriate; b) disproportionately impacts conventional operations and small businesses in Pennsylvania; and c) more fundamentally, fails to comply with the plain directives of Act 52 of 2016, by which the General Assembly – for the second time – rejected the “one-size-fits-all” regulatory approach for conventional and unconventional oil and gas operations in Pennsylvania.

PIOGA also notes that the EPA has proposed to withdraw² the CTGs (i.e., the basis for the CTG O&G Rule) because it relied upon underlying data and conclusions made in the final rule titled “Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources,” published in the Federal Register on June 3, 2016 [2016 New Source Performance Standards (NSPS)]. The EPA is currently looking to significantly revise the breadth and scope of the 2016 NSPS and the recommendations made in the CTG are fundamentally linked to the conclusions in the 2016 NSPS.

Finally, the EQB should not lose sight of the simple and somewhat unique fact that what the regulatory agencies and some stakeholders view as a pollutant is the PIOGA members’ product. The members of PIOGA have a pure economic motivation to capture every molecule of natural gas possible and avoid waste. The amount of natural gas flaring occurring elsewhere around the country is not happening in Pennsylvania and provides no basis for this proposed rule.

Comment No. 1: EQB must revise the rule to exclude owners and operators of conventional wells because the EQB has failed to comply with the plain directives of Act 52 of 2016.

Section 7(b) of Act 52 of 2016, effective June 23, 2016, directs:

Any rulemaking concerning conventional oil and gas wells that the Environmental Quality Board undertakes after the effective date of this act shall be undertaken separately and independently of unconventional wells or other subjects and shall include a regulatory analysis form submitted to the Independent Regulatory Review Commission that is restricted to the subject of conventional oil and gas wells.

Do these Act 52 directives apply to this matter? This simple question raises the following additional questions:

- *Is this a rulemaking?* Yes.
- *Does this rulemaking concern conventional oil and gas wells?* **Yes.** DEP/EQB’s response to Regulatory Analysis Form (RAF) (# 16) includes owners and operators of the specified oil and natural gas sources of VOC emissions associated with both conventional and

¹ See <https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/2016-control-techniques-guidelines-oil-and>

² See <https://www.federalregister.gov/documents/2018/03/09/2018-04703/notice-of-proposed-withdrawal-of-the-control-techniques-guidelines-for-the-oil-and-natural-gas>

unconventional oil and natural gas wells as persons, groups or entities that will be required to comply with the regulation.

- *Has the EQB undertaken this rulemaking after June 23, 2016?* **Yes.** Section 5 of the Pennsylvania Air Pollution Control Act requires the EQB to adopt regulations to implement the CAA, and DEP states that this rulemaking is required to implement the CAA. As DEP writes the regulations for EQB to adopt and promulgate, EQB undertook this rulemaking when DEP began the development of the rulemaking by undertaking the actions and activities that were reported on the RAF (particularly #s 14-19, 23-27) to support the rulemaking. The DEP Secretary chairs the EQB, and DEP submitted on EQB's behalf this proposed rulemaking as well as the RAF, which DEP prepared on EQB's behalf, (i) to the Legislative Reference Bureau for publication in the Pennsylvania Bulletin and (ii) to IRRC and (iii) the Chairpersons of the House and Senate Environmental Resources and Energy Committees. According to the RAF, EQB's undertaking of this rulemaking began, at the latest, with DEP's December 14, 2017 presentation to AQTAC (RAF #14) to begin developing the rulemaking.
- *Did the EQB undertake this rulemaking concerning conventional oil and gas wells separately of unconventional wells or other subjects?* **No**, as plainly shown by the rulemaking itself and thoroughly explained in the comments of the Pennsylvania Grade Crude Oil Coalition (PGCC).
- *Did the EQB undertake this rulemaking concerning conventional oil and gas wells independently of unconventional wells or other subjects?* **No**, again, as plainly shown by the rulemaking itself and thoroughly explained in the comments of the PGCC.
- *Did the EQB submit a RAF to IRRC that is restricted to the subject of conventional oil and gas wells?* **No** – again – as thoroughly explained in the comments of the PGCC and, most significantly, as shown by the RAF itself.

As this Q&A shows, EQB's undertaking this rulemaking concerning conventional oil and gas wells has not complied with the plain directives of Section 7(b) of Act 52.

This is, frankly, unbelievable for two primary reasons: *First*, in 2014 the General Assembly specifically rejected, by an amendment to the Fiscal Code, the “one-size-fits-all” regulatory approach (re the Chapter 78 regulations) for conventional and unconventional oil and gas operations in Pennsylvania (Act 126). While the lawsuit alleging non-compliance with those Fiscal Code directives was dismissed as premature because of the meaning of a statutorily defined term (“promulgate”),³ the Act 52 directives are substantively different than the 2014 Fiscal Code directives: Act 52's directives are based upon plain language rather than a statutorily defined term that is both broader in scope and more prescriptive in how the General Assembly's second rejection of the “one-size-fits-all” regulatory approach for conventional and unconventional wells is to be

³ *Pennsylvania Independent Petroleum Producers Association v. Com., DEP; EQB; IRRC*, No. 219 M.D. 2016, Memorandum Opinion, Colins, J., April 15, 2016 (“If the Final Form Regulations are promulgated as final regulations, PIPP and its members may seek declaratory and injunctive relief at that time raising the claim asserted here, that the regulations were promulgated in violation of Section 1741.1-E(a) of the Fiscal Code and are therefore invalid.”).

carried out. No doubt the Act 52 language was informed by the result of the legal challenge concerning the 2014 Fiscal Code language. Unlike in the Fiscal Code litigation, the time for EQB's compliance with Act 52's directives for this "rulemaking concerning conventional oil and gas wells" has already passed. DEP has already undertaken the actions and activities reported on the RAF (particularly #s 14-19, 23-27) to support this rulemaking, but DEP did not undertake these actions and activities in the manner directed by Act 52 "separately and independently of unconventional wells or other subjects" with a RAF submitted to IRRC "that is restricted to the subject of conventional oil and gas wells."

Second, as explained in PGCC's comments, during DEP's development of this rulemaking (January 2019), the Department of Community and Economic Development's Pennsylvania Grade Crude Development Advisory Council (CDAC) *created by Act 52 to, among other duties, "[e]xplore the development of a regulatory scheme that provides for environmental oversight and enforcement specifically applicable to the conventional oil and gas industry* asked DEP if this rulemaking would impact the conventional industry. DEP's representative "stated that his understanding was that it would not since the conventional wells typically do not cross the thresholds in place for methane emissions, and he agreed to procure additional information for the Council to evaluate." DEP never provided additional information to CDAC and, instead, continued developing the rulemaking, but not "separately and independently of unconventional wells or other subjects" as directed by Act 52. Accordingly, DEP was, and is, unable to submit for this rulemaking a RAF "restricted to the subject of conventional oil and gas wells" as directed by Act 52.

As there can be no reasonable dispute that the EQB has failed to comply with the plain directives of Act 52, the EQB has no choice but to revise the rule to exclude from its scope owners and operators of the specified oil and natural gas sources of VOC emissions associated with conventional wells.

Neither PIOGA nor PGCC believes this rulemaking can be applied lawfully to owners and operators of conventional wells because of non-compliance with the plain directives of Section 7(b) of Act 52 of 2016. Nonetheless, PIOGA and PGCC are submitting general and technical comments to inform DEP and EQB of the significant adverse impacts of this rulemaking on owners and operators of conventional wells. This information should inform DEP's and EQB's decision to undertake any "separate and independent" rulemaking concerning oil and natural gas sources of VOC emissions associated with conventional wells.

The public comment opportunity for this rulemaking cannot be viewed as complying with either the letter or spirit of Act 52's plain language directives, and the following PIOGA comments should not be misconstrued as inconsistent with, waiving or undermining in any way PIOGA's legal argument that this rulemaking cannot be applied lawfully to owners and operators of conventional wells. As for the letter of the language, by basing the required actions and activities on the "undertaking" of the rulemaking, the public comment opportunity which comes *after* DEP undertook the actions and activities that were reported on the RAF (particularly #s 14-19, 23-27) comes too late. As for the spirit of the language, PGCC's comments explain the history of the General Assembly's efforts to require DEP and EQB not to consider conventional and unconventional wells under the same "one size fits all" regulatory approach, and why the failure of DEP and EQB in this rulemaking to undertake the activities that were reported on the RAF

(particularly #s 14-19, 23-27) in the “separate and independent” manner directed by Act 52 cannot be cured by this public comment opportunity.

Comment No. 2: The Emperor’s Old Clothes.

While the Pennsylvania EQB published the notice related to the CTG O&G Rule in the Pennsylvania Bulletin on May 23, 2020, the underlying data “supporting” the proposal is outdated and insufficient. A large majority of the data is circa 2012. The primary supporting document for the proposed controls is the CTGs. The document was finalized October 27, 2016 – a little less than two weeks prior to the last presidential election. Politics aside, the CTGs rely heavily on the Regulatory Impact Analysis finalized in April 2012 to support the imposition of controls on VOC emissions for various segments of the oil and natural gas industry at 40 CFR Part 60, Subpart OOOO. A cursory review of the citations to the 2016 CTGs demonstrate that most of the data is from 2012 or earlier. Perhaps the single most concerning aspect of relying on 2012 (or earlier) data is that the economic analysis conducted by EPA assumes the cost of natural gas at \$4.00 per thousand cubic foot (Mcf) [equivalent to \$3.89 per million British thermal units (MMBTU)]. The average wholesale price for natural gas at the Henry Hub was \$4.20 per MMBTU in 2011. In 2012 it dropped to \$2.77 per MMBTU. The current price for gas at the Henry Hub is \$1.70 per MMBTU, and PIOGA is unaware of any forecasts of prices returning to \$4 per MMBTU anytime soon. Similarly, crude oil was \$103.01 per barrel on Jan. 3, 2012 and is now \$39.60 per barrel as of July 25, 2020.

This is not a new complaint to EPA and is one that EPA has failed to address. PIOGA, as a member of the Independent Petroleum Association of America (IPAA), incorporates by reference the comments filed on December 4, 2015 on the September 18, 2015 Release of Draft Control Technique Guidelines for the Oil and Natural Gas Industry (“IPAA Comments”).⁴ A copy of those comments is attached as Exhibit A to these comments. Aside from limited data collection in the 2012-2013 time period on storage vessels from unconventional operations, the DEP has done little to update the data set relied upon by EPA in the CTGs when additional data associated with VOC emissions from marginal wells and associated equipment may be available. For example, preliminary results from a very recent study entitled Quantification of Methane Emissions from Marginal (Small Producing) Oil and Gas Wells conducted with funding from the U.S. Department of Energy (DOE) is available.⁵ This study, which is not yet complete, is being conducted over three field campaigns. The completed first field campaign was conducted on 233 randomly selected marginal well sites over 25 days during the fall of 2019 in the Appalachian, Illinois, and Forest City Basins. The selected well sites reflected several well head and production equipment configurations including artificial lift and plunger lift wells. The preliminary results of the first field campaign included the following observations:

⁴ Comments submitted by Lee Fuller, Executive Vice President, Independent Petroleum Association of America (IPAA) and V. Bruce Thompson, President, American Exploration and Production Council (AXPC); Docket Id: EPA-HQ-OAR-201502016-0178. As IPAA Comments point out at page 3, in EPA’s rush to publish the proposal, EPA failed to timely make available key supporting documents. Ultimately EPA provided the documents.

⁵ See: <https://netl.doe.gov/node/9373>.

- No emissions were detected at 65% of the designated Gas Sites and 90% of the emissions that were detected were associated with about 13% of the sites
- No emissions were detected at 75% of the designated Light Oil Sites and 90% of the emissions that were detected were associated with about 13% of the sites
- Of the 157 storage vessels associated with designated Gas Sites, only 13% had observed methane or VOC emissions
- Of the 68 storage vessels associated with designated Light Oil Sites, only 33% had observed methane or VOC emissions

There is no excuse for relying on a dated and insufficient data set when DEP has had nearly five years to review available VOC emissions data associated with marginal wells and related operations developed since 2012 or to conduct its own independent analysis of RACT for oil and gas sources in Pennsylvania.⁶ This is especially true in light of a fundamental split between Pennsylvania and EPA in terms of characterizing groups of sources that will be affected by the rule as proposed. The NSPS and CTGs focus on “affected facilities” and start with a requirement of a “hydraulically fractured” oil or natural gas well. EPA makes no distinction on whether the hydraulically fractured well has horizontal legs or into which geographic formation the well is drilled. EPA does not recognize the Pennsylvania-specific terms “conventional” or “unconventional.” For DEP to conduct little-to-no additional research to account for the extreme differences between conventional and unconventional oil and gas sources in Pennsylvania only exacerbates the shortcomings of the Emperor’s Old Clothes.

Comment No. 3: RACT ≠ BSER.

It is not disputed that the controls suggested in EPA’s final CTGs and DEP’s CTG O&G Rule are remarkably similar to EPA’s 2016 NSPS for the oil and natural gas sector.⁷ As the title implies, new source performance standards are requirements that were promulgated for “new sources” or existing source that were “modified” (as defined by EPA). Part of the process of establishing the standards for the new or modified sources is generally referred to as the “Best System of Emissions Reduction” or BSER. BSER is not a “defined” term but is discussed in the CAA Section 111(h)(1):

*For purposes of this section, if in the judgment of the Administrator, it is not feasible to prescribe or enforce a standard of performance, he may instead promulgate a design, equipment, work practice, or operational standard, or combination thereof, which reflects the **best technological system of continuous emissions reduction** which (taking into consideration the cost of achieving such emission reduction, and any non-air quality health*

⁶ DEP cannot claim that no additional relevant data exists. For example, such studies include the “EDF/Allen Study” which illustrates the regional differences in emission rates (Measurements of methane emissions at natural gas production sites in the United States); David T. Allen, Vincent M. Torres, James Thomas, David W. Sullivan, Matthew Harrison, Al Hendler, Scott C. Herndon, Charles E. Kolb, Matthew P. Fraser, A. Daniel Hill, Brian K. Lamb, Jennifer Miskimins, Robert F. Sawyer, and John H. Seinfeld, Proceedings of the National Academy of Sciences October 29, 2013 110 (44) 17768-17773.

⁷ See: https://www.ecfr.gov/cgi-bin/text-idx?SID=d279cd4acfbe03141c166a97874d664f&mc=true&node=sp40.8.60.oooo_0a&rgn=div6

*and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.*⁸

Ostensibly, EPA went through this process in promulgating the 2016 NSPS.⁹ The focus of the new source performance standards promulgation process on establishing standards for new sources stands in stark contrast to the process of establishing emission limitations that are contained in State Implementation Plans (SIPs) for existing sources in nonattainment areas. The CAA requires SIPs to include RACT for existing sources. EPA defines RACT as “the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technology and economic feasibility.”¹⁰ The CAA Section 182(b)(2)(A) requires that SIPs for certain states, including Pennsylvania, include RACT for each category of VOC sources covered by CTGs. To help better define what is economically feasible, EPA determined in a 2006 memorandum a VOC cost threshold at approximately \$2,000 per ton in 1980 dollars¹¹ (accounting for inflation, that is about \$6,620 per ton of VOCs controlled in 2020 dollars¹²). The CAA is clear – while NSPS are focused on new sources, CTGs and RACT are supposed to be focused on accounting for the significant differences associated when applying controls to existing sources versus engineering for the controls *before* the equipment is built.

The remarkable similarities between the 2016 NSPS and the CTGs did not go unnoticed.¹³ The IPAA stated in their comments, comments that PIOGA joined:

- EPA has failed to create a record that demonstrates it made a thoughtful analysis of the technologies it is proposing in the CTGs as RACT – particularly in the context of considering technological and economic feasibility.
- EPA fails to appropriately adjust the economic analysis from the NSPS materials to reflect the different circumstance of existing operations.
- EPA bases much of its cost-effectiveness determinations on average VOC emissions, but RACT needs to be considered by each state for each nonattainment area.

⁸ U.S. Code Title 42, Chapter 85, Subchapter I, Part A, Section 7411(h)(1) (emphasis added).

⁹ The 2016 NSPS were challenged by various entities in 2016, including PIOGA as a member of a large coalition of trade associations. Significant changes to the 2016 NSPS were proposed and are pending, with final regulations expected in August of 2020. One significant aspect of the proposal was to eliminate any and all controls to the transmission and storage segment of the source sector. PIOGA recommends that DEP evaluate its CTG O&G Rule in light of the final changes to the 2016 NSPS, as the factual underpinnings of its rule may be called into question.

¹⁰ 44 FR 53761 (Sept. 17, 1979).

¹¹ <http://www3.epa.gov/ttn/caaa/tl/memorandum/ractqana.pdf>.

¹² http://bls.gov/data/inflation_calculator.htm. It appears that DEP has adopted the thresholds utilized in the 2016 CTG and not adjusted the thresholds for 2020 dollars.

¹³ See IPAA Comments and Comment submitted by Howard J. Feldman, Senior Director, Regulatory and Scientific Affairs, American Petroleum Institute; Docket Id: EPA-HG-OAR-2015-2016-0157 (API Comments).

- Different oil and natural gas formations produce unique vapor compositions including significantly different fractions of VOC in the vapor.
- EPA bases much of its analysis on “model” facilities, but facilities differ depending on the nature of their operations.¹⁴

EPA produced a Response to Comments document in October 2016.¹⁵ EPA acknowledged that its CTGs were similar to BSER determinations in its 2016 NSPS but simply stated “the CTG are based on a separate analysis.”¹⁶ But EPA provided no further discussion of the separate supporting analysis – no citations to the record – just a bold face statement for stakeholders to discover or find for themselves. In a similar manner, EPA tries to undercut stakeholder comments on this point by stating “the commenter fails to specify any particular deficiency in EPA’s analysis that resulted in the RACT presumptive norm included in the CTG and instead relies on a general, unsupported assertion that RACT cannot be the same as BSER.” *The response is remarkable in that it is equivalent to “the pot calling the kettle black.”* Earlier in the response, EPA speaks in generalities and stated the analysis was based on “existing sources and not new sources (e.g. we included retrofit cost adjustment *where information was available*).”¹⁷ In the same paragraph EPA stated “[b]ased on existing requirements and *available information and data* we provided recommendations for RACT for select oil and natural gas industry emission sources . . .”¹⁸ No citations, no sources – merely references to “where information was available.” The obligation is first on the regulatory agency to justify its controls, not put it back on industry to point out the flaws. The reality is there was very little information on existing sources available when EPA rushed to judgment in a presidential election year to finalize the 2016 NSPS and CTGs. While the EPA has proposed to withdrawal the CTGs, the flaws remain and EPA has not adequately addressed the comments made by PIOGA, IPAA, and the American Petroleum Institute (API).¹⁹ DEP relies almost exclusively on the CTGs. DEP still needs to adequately address the comments of PIOGA, IPAA, API on the CTGs – two wrongs do not make a right.

Comment No. 4: Neither EPA nor DEP have demonstrated the CTG O&G Rule is necessary.

IPAA Comments provide a lengthy discussion of why the CTGs are not necessary or will be ineffective at assisting states in achieving the applicable National Ambient Air Quality Standards (NAAQS) for Ozone. DEP adopts much of EPA’s rational for the CTGs, but then acknowledges that EPA has proposed to withdraw the CTGs. The current structure in place in Pennsylvania to regulate unconventional oil and gas operations as stationary sources of air pollution is functioning effectively. Given that the EPA has taken a position that questions the efficacy of 40 CFR Part 60, Subpart OOOOa and is looking to revise its requirements regarding methane emissions,

¹⁴ Id.

¹⁵ Responses to Public Comments on the Draft Control Techniques Guidelines for the Oil and Natural Gas Industry; Docket ID: EPA-HQ-OAR-2015-2016-0235.

¹⁶ Id. at 2.

¹⁷ Id. at 3 (emphasis added).

¹⁸ Id (emphasis added).

¹⁹ PIOGA incorporates by reference the comments of the American Petroleum Institute, Docket No. EPA-HQ-OAR-2015-0216-0157.

PIOGA questions the need to impose requirements on existing oil and gas operations that are generally equivalent to 40 CFR Part 60, Subpart OOOOa. The proposed CTG O&G Rule will greatly increase the administrative burden on regulated entities as well as the DEP while not increasing environmental protection.

Because of the nature of oil and natural gas production, the application of controls on new sources through the 2016 NSPS will achieve the DEP air quality objectives without the need to create extensive existing source regulations. Oil and natural gas production operations differ from other types of manufacturing. After the period of initial production, wells begin to decline, generally referred to as the “production decline curve.” As the production of the well declines, its ability to emit VOC also declines.²⁰ VOC emissions from these older (i.e., conventional) wells are not directly comparable to VOC emissions associated with unconventional wells due to drastic differences in operating pressure and production. Yet the CTG O&G Rule as proposed would subject tens of thousands of existing Pennsylvania conventional wells to new regulations that were developed for new or modified affected sources,²¹ predominantly unconventional wells. PIOGA disputes the cost effectiveness of the proposed requirements to existing Pennsylvania sources, especially conventional operations. The additional administrative burdens that will affect DEP by exposing tens of thousands of existing conventional oil and gas sources is completely overlooked in the proposed rule, even though that is a specific concern under the RRA (see RAF # 23). Although DEP has initiated systems and tools to streamline the air quality permit process associated with oil and gas development (e.g., electronic application filing, general permits, etc.), delays are still common in the processing of oil and gas well permitting events. If DEP staffing and funding levels are inadequate for the current air quality regulatory structure in Pennsylvania, the addition of tens of thousands of newly affected oil and gas sources would undoubtedly make DEP’s work even more difficult. PIOGA suggests that the current air quality regulatory structure for existing unconventional oil and gas operations be retained and that the proposed CTG O&G Rule be withdrawn.

Comment No. 5: The CTG O&G Rule disproportionately impacts conventional sources.

As proposed, the CTG O&G Rule would have a disproportionate and devastating impact on conventional oil and gas operations within the state due primarily to the sheer numbers of existing conventional oil and gas wells, storage vessels, gathering and boosting stations, and natural gas driven pneumatic controllers. The DEP admits the CTG O&G Rule as proposed has the potential to impact over 71,000²² conventional oil and natural gas wells in Pennsylvania. DEP also indicates that its data suggests that only 303 of those conventional wells exceed the regulatory threshold of 15 barrels of oil equivalent (BOE) per day production, and thus make them subject to the fugitive emission provisions of the proposed rule. If DEP is truly concerned with minimizing the regulatory

²⁰ Adopted from IPAA and the American Exploration and Production Council (AXPC) comments December 4, 2015 in response to Draft Control Technique Guidelines for the Oil and Natural Gas Industry (80 Fed. Reg. 56,577)

²¹ PIOGA also notes that only 2,041 conventional wells have been drilled since August 10, 2013 to present, based on DEP spud data indicating that the proposed rule will primarily impact conventional wells that are long past their prime production years and are in decline.

²² While the EQB states that over 71,000 conventional oil and gas wells are operating in Pennsylvania, that number is believed to be conservatively low.

impact to the industry, DEP should have identified and informed the operators of the 303 wells that DEP believes exceed the 15 BOE of their obligations to comply with the fugitive emissions requirements. Why force the operators of the other 70,500 wells spend thousands of dollars merely to determine rule applicability? Another option would have been to build in a margin of “safety” and internally determine which wells DEP believes produce 12 BOE or more a day and contact those owners. This slightly lower screening threshold may have given DEP a degree of confidence that it is identifying all sources that may need to comply.

Additionally, there are multiple conventional owners and operators in Pennsylvania that operate over 1,000 conventional wells. In this scenario, each well site is likely to have at least one storage vessel and one natural gas driven pneumatic controller. Considering *only* the equipment costs associated with retrofitting existing natural gas driven pneumatic controllers with low-bleed pneumatic controllers, and assuming that half of the existing controllers would be replaced, the costs alone for the new controllers would be over 1.3 million dollars, using the average cost of a low-bleed controller from the 2016 CTG (e.g., \$2,698 based on 2012 dollars). That cost does not include cataloging and tagging all pneumatic controllers and the associated labor to replace 500 existing pneumatic controllers. Several comments below document additional cost burdens the rule would impose on owners and operators of conventional wells in Pennsylvania.

EPA and the industry often refer to “marginal wells” and the 15 BOE threshold as utilized in certain EPA regulations and the Internal Revenue Code (IRC). While the term marginal is in reference to their level of production, the reality is that the term marginal also refers to their economic viability. Fifteen barrels of oil per day is approximately equivalent to 90 Mcf per day (MCFD) of natural gas. Most marginal wells and conventional wells in Pennsylvania produce considerably less gas than that per day. At the current price of \$1.70 per Mcf, a well producing 90 MCFD will gross \$153. An extremely efficient marginal well will net approximately \$0.28 for every Mcf (again assuming the conservative assumption of 90 MCFD – most marginal wells are considerably lower than the threshold, therefore generating considerably less money). Based on these conservative assumptions, a very efficiently run marginal, conventional well might be clearing about \$25 a day – in 2020 dollars. EPA’s and DEP’s suggesting that controls costing in the range of \$6,600 per ton of VOC removed are somehow economically justified is ludicrous. EPA’s 2016 NSPS were not designed or cost-justified to control sources from conventional wells in Pennsylvania. The regulations were in response to and targeted at the large volume hydraulically fractured unconventional wells with horizontal legs. The production from these wells in their initial years of production were beyond anything the industry had ever seen. To factor those levels of production into the cost-effectiveness analysis over the life of the well seriously front loads the benefits. EPA and DEP argue, based on the CTGs and CTG O&G Rule, that the cost of one new pneumatic device costing \$3,000 is be cost-effective. Assuming the conservative assumptions set forth above concerning conventional wells, it would take an operator 119 days to break even *just on that single device*.

Inexplicitly, the proposed rule justification also completely ignores the costs to operators associated with simply determining if the rule applies and the associated extensive recordkeeping and reporting requirements for the operator. A typical conventional operator in Pennsylvania faced with the prospect of these exorbitant costs while recovering perhaps \$25 a day from a well will most likely shut-in the well.

Also, there is absolutely no discussion, or even recognition, of the effect on the western Pennsylvania natural gas utilities and their customers of the sudden unavailability of the conventional production the utilities rely upon to meet their least cost service and reliability obligations under the Public Utility Code. PIOGA notes that DEP works with the Pennsylvania Public Utility Commission (PaPUC) concerning Act 13 impact fee matters and that the chairperson of the PaPUC is a member of the EQB.

Comment No. 7: Conventional and unconventional wells are fundamentally different, and these differences are not accounted for by DEP.

The vast majority of the sources that would be affected by the CTG O&G Rule as proposed are associated with conventional wells in Pennsylvania. There are fundamental differences between the emissions profiles of conventional and unconventional wells²³ and associated operations in Pennsylvania. The proposed CTG O&G Rule is based on the recommendations provided in the 2016 CTGs. However, the emissions information used to establish the recommendations in the 2016 CTGs are not representative of the majority of sources in Pennsylvania that would be affected by the rule as proposed those associated with conventional wells. Because of the fundamental differences between conventional and unconventional operations in Pennsylvania and their associated emissions profiles, PIOGA disputes the cost effectiveness bases for the proposed rule as applied to conventional wells and associated affected operations. Rather than relying on the recommendations of the 2016 CTGs, an assessment of the emissions profile of conventional wells within the Appalachian Basin in Pennsylvania and associated VOC control costs would be more accurate and result in vastly different cost-effectiveness values and RACT determinations. PIOGA also notes that DEP was not required to rely on the recommendations of the 2016 CTGs to establish the proposed CTG O&G Rule. Section 1 of the 2016 CTGs includes the following language:

- *This CTG provides recommendations to inform state, local, and tribal air agencies (hereafter, collectively referred to as air agencies) as to what constitutes RACT for select oil and natural gas industry emission sources. Air agencies can use the recommendations in the CTG to inform their own determination as to what constitutes RACT for VOC for the emission sources presented in this document in their Moderate or higher ozone nonattainment area or state in the OTR. The information contained in this document is provided only as guidance.*
- *The CTG ...provides only recommendations for air agencies to consider in determining RACT. Air agencies may implement other technically-sound approaches that are consistent with the CAA, the EPA's implementing regulations, and policies on interpreting RACT.*
- *The recommendations contained in this CTG may not be appropriate for every situation based upon the circumstances of a specific source (e.g., VOC content of the gas, safety concerns/reasons).*

²³ See generally EDF/Allen Study referenced earlier.

Furthermore, “RACT for a particular source is determined on a case-by-case basis, considering the technological and economic considerations of the individual source.”²⁴ EPA, in its earliest discussion of RACT stated:

*the recommended controls are based on capabilities and problems which are general to the industry; they do not take into account the unique circumstances of each facility. In many cases appropriate controls would be more or less stringent. States are urged to judge the feasibility of imposing the recommended controls on particular sources and adjust controls accordingly.*²⁵

DEP has failed to do this. DEP largely rubber stamped the 2016 CTGs – with the only significant changes being to make them more stringent to be consistent with existing state regulations. This is not the “case-by-case” analysis required for RACT determinations – especially when the Commonwealth clearly understands and differentiates between conventional and unconventional well sources. To the extent that the CTG O&G Rule acknowledges the differences, it argues the sources should be treated “consistently” throughout the Commonwealth. This is little comfort to conventional well sources that would be disproportionately impacted and forced to shut-in wells and potentially cease operations all together and more importantly, as stated above, is contrary to the law in Pennsylvania as twice plainly stated in legislation.

Comment No. 8: EPA did not collect any significant data to identify the emissions profile of low production wells and DEP relied on EPA data as compiled in the 2016 CTGs to support the proposed CTG O&G Rule.

A significant shortcoming of the proposed CTG O&G Rule is the reliance of DEP on the data provided in the 2016 CTGs, which is largely reliant on data developed in support of Subpart OOOO and Subpart OOOOa. The data developed by EPA are not representative of the vast majority of the sources that would be impacted by the CTG O&G Rule as proposed; the conventional wells of Pennsylvania, which are almost universally characterized as low production or stripper wells. The IPAA addressed this concern in its 2018 comments:

*“The EPA’s reliance on approximately 25 potentially low production wells in one play – the Barnett Shale in Texas – to define its Model Low Production Well is inadequate. This action is flawed for several reasons. First, there is no reason to believe that Barnett Shale is representative of all low production wells in various plays across the country. Second, the data that was collected in the Fort Worth Study was not intended to address low production wells specifically and is simply a subset of wells incidental to a larger study. Third, even this well selections appears flawed; some wells do not appear to be low production wells. Fourth, and perhaps most importantly, trying to establish a Model Low production Well on the basis of 25 single basin wells will lead to ineffective results and unproductive, inefficient use of resources.”*²⁶

²⁴ 44 FR 53762 (Sept. 17 1979).

²⁵ Id.

²⁶ From November 25, 2019 comments from The Independent Producers to U.S. EPA regarding “Emission Standards for New, Reconstructed, and Modified Sources Review at 84 Federal Register

Further analysis of the 2016 CTGs illustrates the gross generalization EPA utilized to “justify” its RACT recommendations based on the 2012 and 2016 NSPS. As IPAA pointed out in its comments, EPA relied on very few or average VOC gas content analysis to justify its regulations. The VOC content of natural gas varies greatly within particular gas plays (e.g., wet versus dry gas), let alone among entirely different geographic formations:

*RACT needs to be considered by each state for each nonattainment area. Different oil and natural gas formations produce different vapor compositions including significantly different fractions of VOCs in the vapor. Correspondingly, for the same cost, cost effectiveness will change; it will become less-cost-effective as the VOC concentration diminishes.*²⁷

Additionally, the 2016 CTGs based much of its analysis on a “model plant” – intended to be representative of oil and natural gas facilities across the country.²⁸ A drive across the Commonwealth to observe the variety of oil and natural gas facilities will quickly illustrate the foolishness associated with trying to represent the diversity of oil and natural gas facilities by a single model plant. DEP is well aware of this diversity. Its failure to account for these differences is unacceptable and renders its analysis inapt. In addition, DEP did not consider additional data that have been developed reflecting the VOC emissions profiles of marginal wells, including conventional wells in Pennsylvania.²⁹

Comment No. 9: DEP has not provided the basis for population of conventional wells in Pennsylvania cited in the preamble.

DEP estimates that the CTG O&G Rule as proposed would affect 71,229 conventional wells currently in production in Pennsylvania, of which 303 would be subject to leak detection and repair (LDAR) requirements.³⁰ *By DEP’s own estimates, this equates to only 0.42% of conventional wells in production.* For those owners and operators that do not own the 303 affected wells, the costs associated with an applicability determination (e.g., administrative costs, lost man hours, costs for environmental consultants) to conclude that they are exempt is overly burdensome, especially considering that DEP has already in effect made the determination. DEP should provide the basis for its estimate of the number of conventional wells subject to LDAR requirements under the CTG O&G Rule as proposed.

50,244 (September 24, 2019). It is unclear if EPA or DEP even took this limited data set into consideration when proposing the CTG O&G Rule.

²⁷ IPAA comments at 40.

²⁸ IPAA comments at 41.

²⁹ *Id.* at 7

³⁰ Section D – Background and Purpose, PA Bulletin, Doc. No. 20-684, 50 Pa.B. 2633, Saturday, May 23, 2020.

Comment No. 10: There are significant differences associated with emissions from new storage vessels versus existing storage vessels.³¹

A new vessel can be designed to accommodate a vapor collection system whether it is for recovery or combustion. Once built, both the vessel and the system can be maintained to assure that they are operating effectively and safely. Because the proposed rule and its basis (i.e., 2016 CTGs) addresses existing facilities, there is no certainty that the affected storage vessels will be capable of accepting the equipment retrofits, if needed, to capture vapors. Vessels deteriorate over time despite maintenance, and if the structural integrity is compromised by the additional equipment, a safety issue arises, rendering the retro-fit impractical. Under DEP inspection rules, mechanical integrity must be certified, and the retrofits required under the CTG O&G Rule could cause such tanks to be uncertifiable, which in turn would require their replacement.

In this context, and more generally, the cost basis of the proposed rule (i.e., EPA's 2016 CTG estimates) must be scrutinized. EPA suggests that in the 2016 CTG, vapor recovery units (VRU) or combustors can be considered RACT for vessels with potential VOC emissions of six tons/year or more. However, if a storage vessel cannot safely operate with additional equipment, the entire vessel would have to be replaced, if storage vessel replacement is even economically feasible. Neither EPA nor DEP considered this situation in calculating cost effectiveness, but should have because the consequences would considerably alter the determination of RACT. For example, at some facilities and under current economic conditions, the cost of a new storage vessel would not be economically feasible based on the facility's production rates and realized low natural gas commodity prices.

Comment No. 11: Storage vessels associated with conventional well operations should not be regulated under the proposed rule.³²

Clearly, the burden of adding capture and control equipment – and certainly the burden of replacing storage vessels – cannot be readily borne by marginal (i.e., conventional) well operations. In the 2016 CTGs, EPA relates storage vessel VOC emissions to well production rates.³³ The information provided in the CTG indicates that marginal (i.e., conventional) well operations (e.g., less than 15 BOE) *fall well below even EPA's presumed RACT threshold of six tons/year for both oil and gas wells*. Rather than deliberate on storage vessel emissions estimates or requiring conventional operators in Pennsylvania to assess storage vessel emissions and rule applicability, the straightforward approach to defining the scope of the proposed storage vessel rule requirement apart from Act 52's directives would be to exclude marginal (i.e., conventional) well operations from the proposed storage vessel provisions. Similarly, when a facility's production levels fall to the point where it inevitably becomes a marginal or stripper well operation, it should no longer be required to operate any vapor capture system. Beyond the proposed exclusion of storage vessels associated with conventional wells, there should also be the opportunity for operators to demonstrate that their uncontrolled storage vessel VOC emissions are below four tons/year to obtain an exclusion from applicability to the storage vessel provisions of the proposed rule.

³¹ See generally IPAA Comments and API Comments.

³² *Id.*

³³ 2016 Control Techniques Guidelines for the Oil and Natural Gas Industry p.4-5, Table 4-2.

As well production decreases over time, there should also be an “off-ramp” for controlled tanks that would allow for the reconfiguration of control equipment. At lower production levels, control technology will not only become impracticable, but it also will cause more environmental impact than direct emissions of VOC. For example, combustion of vapors at low and intermittent flow will require a gas pilot and assist gas. Depending on the size of the burner and gas quality, for a 2” gas combustor that as much as 500 Mcf gas per year could be required to obtain stoichiometric flow and combustion conditions to meet required destruction efficiencies. The comparable gas flow rate from a tank emitting six tons/year would be approximately 44 Mcf, *making the required combustion assist gas approximately 11 times more gas than the tank vapors*. The combustion of large quantities of assist gas to maintain the minimum requirements of maintaining the control equipment not only releases additional products of combustion emissions, it requires the consumption of the facility’s product (natural gas).

Comment No. 12: Fuel for pilot flame to combust VOC results in excess emissions of other regulated New Source Review (NSR) pollutants.

As explained under Technical Comment No. 11, the potential vapors available from a tank emitting six tons/year are marginal in comparison to the natural gas required to maintain the gas pilot and assist gas for a combustion control device. As a result, approximately 11 times more gas would be combusted than the vapors controlled. The environmental impacts of combusting excess gas to maintain a control device should be considered as it will increase emissions of other regulated pollutants, swapping one emission for several others.

Comment No. 13: Cost of evaluating applicability to storage vessel requirements.

Determining the applicability of the proposed rule storage vessel requirements requires employing “generally accepted methods” to determine the VOC emissions rate from each and every storage vessel. Typically, this is done using the calculation methodologies from EPA for Organic Liquid Storage Tanks and/or using commercially-available emissions modelling software. Setting up an emissions model and/or emissions calculations for a single tank is time-consuming and costly, through either lost man hours or the use of consultants or test firms, which could run on the order of \$1,000 per tank. Further, with the recent amendments to EPA AP-42 Chapter 7: Liquid Storage Tanks, many commercially-available software programs do not meet the new calculation methodologies. Considering the tens of thousands of existing storage vessels in Pennsylvania that would require an applicability analysis and determination, the administrative and economic burdens of running tank emissions calculations is immense.

Comment No. 14: Small gathering and boosting compressors should be exempt from the proposed rule.

DEP has not established an exemption for compressors based on size or operating conditions. Reciprocating compressors can be rated as low as two horsepower (hp) and may be equipped with blow-by gas recycle with no leakage to the atmosphere. In addition, many small compressors associated with gathering and boosting operations are electric. Small reciprocating compressors do not have rod packings and have not been identified as having appreciable emissions beyond very low fugitives. Given the administrative costs of compliance documentation, and reduced emissions associated with smaller compressors, such sources should be exempted. Without an

exemption, the industry would be faced with a huge administrative burden for compressors exhibiting extremely low or no VOC emissions.

The costs associated with required maintenance of small gathering and boosting operations is also cost prohibitive. As a real-world example, a group of four 6 MCFD wells feeding a small 10 hp electric powered reciprocating compressor (a very common configuration) is evaluated. The realized profit on the four wells and one compressor is \$0.28 per MCFD, based on the current gas price of \$1.70/Mcf and a \$1.42 breakeven level. For the total 24 MCFD produced by the four wells, there is a daily profit of \$6.72. Because there are no exemptions for this small compressor, the proposed compressor rules would apply. The cost of documenting and tracking compliance in this system is estimated to be a minimum of \$1,000 per compressor. *It would therefore take 148 days of operation to pay for the compliance documentation alone.*

Comment No. 15: The proposed rule does not differentiate between continuous bleed natural gas driven pneumatic controllers and intermittent pneumatic controllers.

The proposed rule incorrectly characterizes all pneumatic controllers as affected facilities. The proposed rule should be revised to clearly reflect that intermittent or snap-action pneumatic controllers are not affected facilities under Subpart OOOOa³⁴ or the 2016 CTGs³⁵ and should not be affected facilities under the proposed rule.

Comment No. 16: The proposed rule requirements for pneumatic controllers and pneumatic pumps should not apply to marginal (i.e., conventional) well facilities.

Clearly, the burden of cataloging and labeling all existing pneumatic devices, evaluating their applicability to the proposed rule, and replacing affected pneumatic controllers with new, compliant pneumatic controllers represents a capital cost that most conventional well operators in Pennsylvania would not be able to bear. As mentioned in Comment No. 4, the capital equipment costs associated with retrofitting existing continuous bleed natural gas driven pneumatic controllers with low-bleed pneumatic controllers, would be approximately \$2,698 per unit, based on 2012 dollars and pneumatic controller costs from the 2016 CTGs. That cost does not include the administrative cost of evaluating rule applicability to each controller and cataloging/tagging each controller. Considering that several controllers could be present at each well site, *operators with 500 active wells could be facing compliance costs of \$1,000,000 or more.*

Comment No. 17: Pneumatic pump tracking to document exemption is impractical and cost-prohibitive based on current technology.

The proposed CTG O&G Rule provides a categorical exemption for natural gas-driven diaphragm pumps located at a well site, which operate less than 90 days per calendar year, so long as the owner or operator maintains records of the operating days. However, there is no cost-effective, commercially available technology available [e.g., supervisory control and data acquisition (SCADA) systems] available that are capable of tracking the pneumatic pump operating days. As

³⁴ 2016 Small Entity Compliance Guide Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources 40 CFR Part 60, Subpart OOOOa p. 32

³⁵ 2016 Control Techniques Guidelines for the Oil and Natural Gas Industry p.6-3

such, this exemption will likely not be utilized, and operators will be forced by default to comply with the rule for pumps which should otherwise be exempt. The requirement to track actual operating data should, therefore, be removed and be replaced with a one-time applicability determination of worst-case actual operation to document the exemption status of a compressor.

Comment No. 18: The proposed exclusion of leak detection and repair (LDAR) requirements for low production wells (i.e., less than 15 BOE per well per day) should be extended to gathering and boosting compressor stations servicing conventional operators.

The proposed rule provisions that exempt low production wells from the proposed rule LDAR requirements are supported by EPA's statement in the 2016 CTGs (i.e., the basis for the proposed rule):

*"It is our understanding that fugitive emissions at a well site with low production wells are inherently low and that many well sites are owned and operated by small businesses. We are concerned about the burden of the fugitive emissions recommendation on small businesses, in particular where there is little emission reduction to be achieved."*³⁶

EPA is correct in its assertion that the ongoing costs associated with LDAR inspections at low production wells would create an unnecessary financial burden on small business while simultaneously creating a huge administrative burden on both operators and DEP. The same justification for exempting low production wells from LDAR requirements should also be applied to gathering and boosting operations that are associated with low production (i.e., conventional) operations in Pennsylvania.

Comment No. 19: The economic viability of many conventional operators is at stake.

Considering the tens of thousands of individual pieces of equipment for which rule applicability will need to be determined (e.g., thousands of units that qualify as storage vessels, pneumatic devices), there is considerable cost associated with the initial compliance determination for, and ongoing compliance with, the CTG O&G Rule as proposed. For many small conventional operators who are currently operating at very low margins, the added overhead costs of such administrative burdens associated with determining rule applicability and ongoing recordkeeping and compliance could be catastrophic. Such cost items that should be considered include:

- Cataloging of equipment, applicability determinations, and associated recordkeeping
- Compliance monitoring, recordkeeping and reporting
- Administrative costs
- Support staff
- Consultants/test firms

Given the aforementioned administrative costs of this rule due to compliance assessments, recordkeeping and reporting coupled with the capital costs associated with upgrading tanks,

³⁶ U.S. Environmental Protection Agency, Control Techniques Guidelines for the Oil and Natural Gas Industry (Draft), (Aug. 2015) available at http://www3.epa.gov/airquality/oilandgas/pdfs/og_ctg_draft_081815.pdf

adding controls, and retrofitting pneumatic devices many conventional wells in Pennsylvania would be deemed uneconomic to operate. Besides the economic impact to small operators and many rural communities that rely on small operators as employers, ceasing operation of existing conventional wells causes many issues, including:

- Depriving royalty owners of income
- Loss of a natural resource with sunk costs and reduced environmental impact
- Loss of direct and indirect jobs
- Loss of impact fees/severance taxes
- Loss of commonwealth income tax from lost jobs
- Dependence on out-of-state gas and energy, and increased energy costs for consumers

The costs of ceasing operations is considerable and includes restoration of currently active sites and the plugging of currently producing wells. Well plugging costs can range from \$30,000 to \$300,000 depending on the well type. Many conventional operators cannot bear this cost burden.

Conclusion

For the reasons set forth in Comment No. 1 above, PIOGA respectfully requests that the EQB do the right and lawful thing and revise the rule to exclude from its scope owners and operators of the specified oil and natural gas sources of VOC emissions associated with conventional wells.

PIOGA also requests that the EQB revise the rule concerning the specified oil and natural gas sources of VOC emissions associated with unconventional wells in accordance with the rest of the comments.

Respectfully submitted,



Kevin J. Moody
General Counsel
Pennsylvania Independent Oil & Gas Association

CC: The Honorable Gene Yaw
The Honorable Daryl D. Metcalfe



July 28, 2022

VIA EMAIL to kramamurth@state.pa.us

Krishnan Ramamurthy, Deputy Secretary, Waste, Air, Remediation and Radiation
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Re: Pennsylvania VOC/RACT regulation of conventional oil and gas operations

Dear Mr. Ramamurthy:

The captioned trade organizations represent individuals and businesses engaged in conventional oil and gas production in Pennsylvania. We understand the Department intends to undertake a separate rulemaking for the RACT requirements for sources of VOC emissions at Pennsylvania's conventional oil and gas facilities. We appreciate the intention to develop a separate rulemaking and assume that a proposed rulemaking will be developed according to procedures described under applicable law. As the Department proceeds with the development of its separate rulemaking, we would like to offer assistance that may be unique.

When the Department was advancing the combined rulemaking, for both conventional and unconventional facilities, the information in the Regulatory Analysis Form (RAF) provided to the Independent Regulatory Review Commission (IRRC) was derived from, and geared nearly exclusively to, unconventional gas facilities. The RAF did not inform our conventional oil and gas membership as to what conventional oil and gas facilities would be subject to the regulations, what the regulations would require, the costs of those requirements, and other matters fundamental to the operation of conventional oil and gas businesses in Pennsylvania.

The members of the three trade organizations would like to offer their assistance in the Department's undertaking. As you know, there are three types of conventional wells in Pennsylvania: oil, gas, and combined oil and gas. Each type has different configurations and therefore different potentials for VOC emissions. Our members are able and willing to assist the

Department in assessing those different potentials by making the different types of wells available for testing. Indeed, some of our members have undertaken VOC emissions testing and have results in hand. This existing and potential information will, of course, bear on the need for the regulation and provide data upon which a regulation may be based.

Our members are also able and willing to help the Department estimate the direct and indirect costs to the private sector. Labor costs have risen greatly in the past twelve months; material costs have risen even faster. Our members have up-to-date knowledge of those costs. In addition, the implementation of any new regulation will generate legal, accounting, consulting, reporting, and recordkeeping obligations. Our members can provide information as to how those obligations will specifically evolve in the conventional industry, and the direct and indirect costs thereof.

Many of the conventional oil and gas businesses that would be affected by a potential VOC emission regulation are small businesses. This is, of course, a marked difference from the considerations that were at play in the VOC emission rule developed for unconventional gas facilities, and our members are able and willing to provide data that will help inform the Department's obligation to identify the number of small businesses that will be affected, the professional skills necessary for compliance, and, in general, the probable effect on the small businesses. In addition, our members are creative problem solvers who can assist the Department in its obligation to examine less intrusive or less costly alternative methods of achieving the purposes for which the data shows need.

Our members can provide assistance in different manners. If the Department would like to interface with a series of individuals and businesses we can provide a list of our members who are prepared to assist as described above. Alternatively, we point to the resource of the Pennsylvania Grade Crude Development Advisory Council (CDAC). While the CDAC does not have a mandatory role in the development of any VOC emission rule relating to conventional oil and gas facilities, the CDAC charter includes the duty to explore the development of a regulatory scheme that provides for environmental oversight specifically applicable to the conventional oil and gas industry. This task is sufficiently broad to allow the CDAC to serve in the assistive role described above. We think it likely that the CDAC would enthusiastically and competently take

up such a project. For the convenience of the Department, the CDAC could serve as a single point of contact for the kind of cooperative effort envisioned in our offer.

We look forward to hearing back from you in what we envision to be a mutually beneficial process.

Sincerely,



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