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IN THE COMMONWEALTH COURT OF PENNSYLVANIA

NO. _____ MD 2022

PENNSYLVANIA INDEPENDENT OIL & GAS ASSOCIATION, PENNSYLVANIA GRADE CRUDE OIL COALITION, AND PENNSYLVANIA INDEPENDENT PETROLEUM PRODUCERS ASSOCIATION,

Petitioners,

v.

COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENVIRONMENTAL QUALITY BOARD OF THE COMMONWEALTH OF PENNSYLVANIA,

Respondents.

PETITION FOR REVIEW IN THE NATURE OF A COMPLAINT FOR DECLARATORY RELIEF

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IN THE COMMONWEALTH COURT OF PENNSYLVANIA

Pennsylvania Independent Oil & Gas Association, Pennsylvania Grade Crude Oil Coalition, and Pennsylvania Independent Petroleum Producers Association, *Petitioners*,	:	
v.	:	No. _________ M.D. 2022
Department of Environmental Protection of the Commonwealth of Pennsylvania and Environmental Quality Board of the Commonwealth of Pennsylvania, *Respondents*.	:	

<u>NOTICE TO DEFEND</u>

TO: RESPONDENTS

You have been sued in court. If you wish to defend against the claims set forth in this Petition, you must take action within thirty (30) days after this Petition and Notice are served, by entering a written appearance personally or by an attorney and filing in writing with the court your defenses or objections to the claims set forth against you. You are warned that if you fail to do so, the case may proceed without you and a judgment may be entered against you by the court without further notice for any money claimed in the petition or for any claim or relief requested by the Petitioner. You may lose money or property or rights important to you.

YOU SHOULD TAKE THIS PAPER TO YOUR LAWYER AT ONCE. IF YOU DO NOT HAVE A LAWYER, GO TO OR TELEPHONE THE OFFICE SET FORTH BELOW. THIS OFFICE CAN PROVIDE YOU WITH INFORMATION ABOUT HIRING A LAWYER. IF YOU CANNOT AFFORD TO HIRE A LAWYER, THIS OFFICE MAY BE ABLE TO PROVIDE YOU WITH INFORMATION ABOUT AGENCIES THAT MAY OFFER LEGAL SERVICES TO ELIGIBLE PERSONS AT A REDUCED FEE OR NO FEE.

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IN THE COMMONWEALTH COURT OF PENNSYLVANIA

Pennsylvania Independent Oil & Gas Association, Pennsylvania Grade Crude Oil Coalition, and Pennsylvania Independent Petroleum Producers Association, *Petitioners*,	:	
v.	:	No. _________ M.D. 2022
Department of Environmental Protection of the Commonwealth of Pennsylvania and Environmental Quality Board of the Commonwealth of Pennsylvania, *Respondents*.	:	

PETITION FOR REVIEW IN THE NATURE OF A
COMPLAINT FOR DECLARATORY RELIEF

And now come Petitioners, Pennsylvania Independent Oil & Gas Association ("PIOGA"), Pennsylvania Grade Crude Oil Coalition ("PGCC"), and Pennsylvania Independent Petroleum Producers Association ("PIPP") (collectively, "Conventional Producers"), by and through their undersigned counsel, and file this Petition for Review in the Nature of a Complaint for Declaratory Relief ("Petition"), averring as follows:

1. As explained fully below, Conventional Producers bring this action pursuant to the Declaratory Judgments Act, 42 Pa. C.S. §§ 7531-7541, to determine the legal rights and obligations of the parties concerning the Respondent agencies' undertaking and promulgating emergency certified final-omitted Conventional VOC

Regulation, #7-580, IRRC No. 3363, and involves actual controversies that are ripe for consideration and disposition as a matter of law, to wit: (i) whether the Respondent agencies' omitting public comment on the Conventional VOC Regulation was lawful under Sections 201, 202, and 204(3) of the Commonwealth Documents Law (CDL); and (ii) whether the Conventional VOC Regulation—imposing requirements on owners or operators of VOC emission sources at conventional oil and gas wells and well sites —is a regulation "concerning conventional oil and gas wells" subject to the mandates of Section 7(b) of the Pennsylvania Grade Crude Development Act, Act 52 of 2016, 58 P.S. §§ 1201-1208 (Act 52 of 2016), which requires, *inter alia*, that "[a]ny rulemaking concerning conventional oil and gas wells that the Environmental Quality Board undertakes . . . shall be undertaken separately and independently of unconventional wells . . . ." 58 P.S. § 1207(b). The emergency certified final-omitted Conventional VOC Regulation (Annex A) is attached as Conventional Producers Exhibit No. 1.

PARTIES

2. Petitioner PIOGA is a nonprofit trade association that, through its predecessor organizations, has been representing Pennsylvania's independent oil and natural gas producers since 1918. PIOGA's mission includes participation in the Pennsylvania rulemaking process and otherwise protecting the rights of natural gas and crude oil producers to develop and produce natural gas and crude oil in

the Commonwealth of Pennsylvania and supporting members confronted with unjustified legal or regulatory action concerning natural gas or crude oil activities. PIOGA member companies operate crude oil and natural gas wells producing from both conventional and unconventional formations, and many of PIOGA's producer members are small businesses.

3. PIOGA members include owners or operators of VOC emission sources at conventional oil and gas wells and well sites.

4. Petitioner PGCC is a nonprofit trade organization formed in 2013 that represents conventional oil and natural 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 natural gas development. PGCC's members reside and operate throughout western Pennsylvania.

5. PGCC members include owners or operators of VOC emission sources at conventional oil and gas wells and well sites.

6. Petitioner PIPP is a nonprofit trade association that was formed in 1985 after the enactment of the Pennsylvania Oil and Gas Act of 1984 to represent conventional oil producers, suppliers and supporters and to engage in the rulemaking process in Pennsylvania. The vast majority of PIPP's members are individuals or small, family-run businesses that own and/or lease property interests

that enable them to conduct small-scale oil exploration, drilling, production, and related operations from shallow, conventional formations in Northwestern Pennsylvania.

7. PIPP members include owners or operators of VOC emission sources at conventional oil and gas wells and well sites.

8. PIOGA, PGCC and PIPP members are appointed to and sit on the Pennsylvania Grade Crude Oil Development Advisory Council ("CDAC"), which was established by the Pennsylvania Grade Crude Development Act, Act 52 of 2016.

9. Respondent Pennsylvania Department of Environmental Protection (DEP) is the administrative department with the duty and authority to administer and enforce Pennsylvania statutes and regulations promulgated thereunder concerning, *inter alia*, conventional oil and gas wells and unconventional gas wells in the Commonwealth, including, but not limited to: Section 1917-A of the Administrative Code of April 9, 1929, P.L.177, No. 175, *as amended*, 71 P.S. § 510-17; the Clean Streams Law of June 22, 1937, P.L.1987, No. 394, *as amended*, 35 P.S. §§ 691.1–691.1001; the Air Pollution Control Act of January 8, 1960, 1959 P.L.2119, No. 787, 35 P.S. §§ 4001–4015; the Solid Waste Management Act of July 7, 1980, P.L.380, No. 97, *as amended*, 35 P.S. §§ 6018.101–6018.1003; and the 2012 Oil and Gas Act of February 14, 2012, P.L.87, No. 13, 58 Pa. C.S. §§ 3201–3274.

10. Respondent Pennsylvania Environmental Quality Board (EQB) was established by Act 275 of December 3, 1970 ("Act 275"), P.L.834, No. 275, which added Section 471 (relating to the composition of EQB) to the Administrative Code of 1929, 71 P.S. § 180-1, and provides that the Secretary of DEP chairs EQB. Act 275 also added Section 1920-A to the Administrative Code of 1929, 71 P.S. § 510-20, to establish the powers and duties of EQB, which include "to formulate, adopt and promulgate such rules and regulations as may be determined by the board for the proper performance of the work of the department [DEP], and such rules and regulations, when made by the board, shall become the rules and regulations of the department."

11. DEP formulates the environmental regulations that are adopted by EQB, and DEP formulated the regulations pertinent to this action: Combined VOC Rulemaking, #7-544, IRRC No. 3256; final-omitted Conventional VOC Regulation, #7-579, IRRC No. 3359; and emergency certified final-omitted Conventional VOC Regulation, #7-580, IRRC No. 3363.

JURISDICTION

12. The Commonwealth Court has original jurisdiction of civil actions against the Commonwealth government, 42 Pa. C.S. §761(a)(1), and the authority to grant declaratory relief as to the same. *Com., Office of Governor v. Donahue,* 98 A.3d 1223, 1233 (Pa. 2014).

13. Both Respondent agencies are part of the Commonwealth government, as

defined in 42 Pa. C.S. § 102.

14. The Conventional Producers and their members have a direct, immediate, and substantial interest in the controversies stated above in ¶1 as they have suffered and will continue to suffer direct, immediate, and substantial harm as a result of the failure of the Respondent agencies to comply with the clear mandates in the CDL and Section 7(b) of Act 52 of 2016.

15. The Conventional Producers have no other court or tribunal from which they may seek relief.

FACTUAL BACKGROUND

Background and History of the VOC Rulemakings

16. The Commonwealth of Pennsylvania, acting through DEP and EQB, asserts that it has responsibilities under the federal Clean Air Act (CAA) to establish standards ("reasonably available control technology" or RACT) for certain oil and natural gas industry sources of emissions ("volatile organic compounds" or VOC) that contribute to ozone formation. *See* Sections 8 and 9 of the final-omitted and emergency certified final-omitted Conventional VOC Regulation Regulatory Analysis Forms (RAFs), which are incorporated herein by reference, pp. 1-2 of 45 and 46, respectively. The referenced portions of the final-omitted and emergency certified final-omitted Conventional VOC Regulation RAFs are set forth in Conventional

Producers Exhibit Nos. 2 and 3, respectively.[1]

17. The Commonwealth of Pennsylvania, acting through DEP and EQB, asserts the responsibility to determine RACT, which (i) is "the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility," 44 FR 53761 (September 17, 1979), and (ii) for a "particular [emission] 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).[2] *See* Section 9 of the final-omitted and emergency certified final-omitted Conventional VOC Regulation RAFs, pp. 2-8 of 45 and 46, respectively; Conventional Producers Exhibit Nos. 2 and 3.

18. The Commonwealth of Pennsylvania, acting through DEP and EQB, asserts that its failure to promulgate VOC regulations in compliance with federal deadlines has resulted in the imposition of sanctions under the CAA. *See* Section 9 of

[1] Only the relevant pages of the exhibits are attached to this Petition.
[2] Available at: https://www.epa.gov/sites/default/files/2016-10/documents/implementing_reasonably_available_control_technology_requirements_for_sources_covered_by_the_2016_control_techniques_guidelines_for_the_oil_and_natural_gas_industry.pdf.

the final-omitted and emergency certified final-omitted Conventional VOC Regulation RAFs, p. 5–6 of 45 and 46, respectively, attached as Conventional Producers Exhibit Nos. 2 and 3, and the Comment and Response ("C&R") Document, which is hereby incorporated by reference, pp. 12-13 of 211. The referenced portions of the C&R Document, which are the same for both the final-omitted and emergency certified final-omitted Conventional VOC Regulations, are set forth in Conventional Producers Exhibit No. 4.[3]

19. The Commonwealth of Pennsylvania, acting through DEP and EQB, asserts that allowing written comments to the final-omitted and emergency certified final-omitted Conventional VOC Regulations is impracticable and unnecessary because the "VOC RACT requirements for the conventional oil and natural gas sources . . . are identical to those contained in the combined rulemaking."[4] *See* Preambles for the final-omitted and emergency certified final-omitted Conventional VOC Regulations, which are hereby incorporated by reference, pp. 2-3 of 50 and 51, respectively. The referenced portions of the Preambles are set forth in Conventional

[3] A full copy of the C&R Document is available at:
https://files.dep.state.pa.us/PublicParticipation/Public%20Participation%20Center/PubPartCenterPortalFiles/Environmental%20Quality%20Board/2022/November_30_2022/03a_7-579_COG%20VOC_ECFO_CRD.pdf.

[4] As described below, DEP refers to the proposed Control of VOC Emissions from Oil and Natural Gas Sources rulemaking adopted by EQB on December 17, 2019 as the "combined rulemaking." *See* final-omitted and emergency certified final-omitted Conventional VOC RAFs Section 9, p. 6; Conventional Producers Exhibit Nos. 2 and 3.

Producers Exhibit Nos. 5 (final-omitted Conventional VOC Regulation) and 6 (emergency certified final-omitted Conventional VOC Regulation).

20. The Commonwealth of Pennsylvania, acting through DEP and EQB, asserts that allowing written comments to this final Conventional VOC Regulation is contrary to the public interest because submission to EPA is necessary before December 16, 2022 to avoid additional CAA sanctions. *See* Section 9 of the final-omitted and emergency certified final-omitted Conventional VOC Regulation RAFs, pp. 7-8 of 45 and 46, respectively, Conventional Producers Exhibit Nos. 2 and 3; and Preambles, p. 2–3 of 50 and 51, respectively, Conventional Producers Exhibit Nos. 5 and 6.

<u>Respondents spent three years developing the proposed VOC Rulemaking</u>.

21. The federal recommendations informing DEP's RACT determinations are the "Control Techniques Guidelines for the Oil and Natural Gas Industry" issued by EPA on October 16, 2016 (2016 O&G CTG).

22. After the October 16, 2016 issuance of the O&G CTG over six years ago, DEP began the development of the Combined VOC Rulemaking sometime before December 14, 2017, when DEP presented concepts to its Air Quality Technical Advisory Committee (AQTAC) on a potential rulemaking incorporating the 2016 O&G CTG recommendations.

23. Over two years later, on December 13, 2018, DEP met once more with

AQTAC for an informational presentation on a preliminary draft proposed Combined VOC Rulemaking.

24. During 2019, DEP had meetings concerning the proposed Combined VOC Rulemaking with various groups, including the Pennsylvania Grade Crude Development Advisory Council (CDAC), which was created by Act 52 of 2016, on the status of the proposed Combined VOC Rulemaking.

25. The minutes from the January 24, 2019 CDAC meeting state:

> Chairman Stewart inquired as to whether the methane rule from the Air Quality Board would impact the conventional industry. Mr. Klapkowski [*DEP Director of the Bureau of Oil and Gas Planning and Program Management from March 2012 until February 2022, now serving as Acting Deputy Secretary Office of Oil and Gas Management*] 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."

The minutes are available at:

https://dced.pa.gov/download/Meeting%20Minutes%2001-24-19/?wpdmdl=90029 and are attached as Conventional Producers Exhibit No. 7.

26. DEP's update to CDAC did not include any solicitation of information from CDAC concerning VOC emission sources at conventional oil and gas wells and well sites to assist DEP in developing the proposed Combined VOC Rulemaking.

27. CDAC met again in May and November 2019, but DEP did not provide or seek additional information concerning the proposed Combined VOC Rulemaking

for CDAC to evaluate.

28. Other than the January 24, 2019 update to CDAC, DEP did not meet with representatives from the conventional oil and gas industry Petitioners concerning the development of the proposed Combined VOC Rulemaking.

29. On December 17, 2019, EQB approved the proposed Combined VOC Rulemaking, Regulation #7-544, IRRC No. 3256.

Respondents spent nearly two more years developing the final Combined VOC Rulemaking.

30. On April 27, 2020, DEP submitted the proposed Combined VOC Rulemaking to the Legislative Reference Bureau for publication in the Pennsylvania Bulletin and for public comment, and to the Independent Regulatory Review Commission (IRRC) and the Chairpersons of the House and Senate Environmental Resources and Energy Committees.

31. The proposed Combined VOC Rulemaking included a RAF required by the Regulatory Review Act (RRA), 71 P.S. § 745.5(a)(1)-(14) but did not include a RAF restricted to the subject of conventional oil and gas wells.

32. The RRA requires a RAF to include detailed information regarding the need, the costs, the impacts, and the regulatory alternatives that were considered.[5]

[5] RAF components particularly relevant to the Conventional Producer members, most of which are small business, include:
"(5) A statement of legal, accounting or consulting procedures and additional reporting, recordkeeping or other **paperwork, including copies of forms or reports**, which will be required for implementation of the regulation and an explanation of measures which have been taken to

33. The proposed Combined VOC Rulemaking RAF stated:

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minimize these requirements.

. . .

(9) An identification of the types of persons, small businesses, businesses and organizations which would be affected by the regulation.

(10) An identification of the **financial, economic and social impact of the regulation** on individuals, small businesses, business and labor communities and other public and private organizations and, when practicable, an evaluation of the benefits expected as a result of the regulation.

(10.1) For **any proposed regulation that may have an adverse impact on small businesses, an economic impact statement** that includes the following:

(i) An identification and estimate of the number of the small businesses subject to the proposed regulation.

(ii) The projected reporting, recordkeeping and other administrative costs required for compliance with the proposed regulation, including the type of professional skills necessary for preparation of the report or record.

(iii) A statement of the probable effect on impacted small businesses.

(iv) A description of any less intrusive or less costly alternative methods of achieving the purpose of the proposed regulation.

(11) A description of **any special provisions** which have been developed to meet the particular needs of affected groups and persons, including minorities, the elderly, small businesses and farmers.

(12) A description of any **alternative regulatory provisions** which have been considered and rejected and a statement that the least burdensome acceptable alternative has been selected.

(12.1) A **regulatory flexibility analysis** in which the agency shall, where consistent with health, safety, environmental and economic welfare, consider utilizing regulatory methods that will accomplish the objectives of applicable statutes while minimizing adverse impact on small businesses. The agency shall consider, without limitation, each of the following methods of reducing the impact of the proposed regulation on small businesses:

(i) the establishment of **less stringent compliance** or reporting requirements for small businesses;

(ii) the establishment of **less stringent schedules** or deadlines for compliance or reporting requirements for small businesses;

(iii) the consolidation or simplification of compliance or reporting requirements for small businesses;

(iv) the establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; and

(v) the exemption of small businesses from all or any part of the requirements contained in the proposed regulation.

. . .

(14) A description of any data upon which a regulation is based with a detailed explanation of how the data was obtained and why the data is acceptable data. An agency advocating that any data is acceptable data shall have the burden of proving that the data is acceptable."

71 P.S. § 745.5(a) (emphasis added).

a. "Approximately 199 conventional wells and 4,913 unconventional well[s] will be required to implement LDAR [leak detection and repair] [programs] or increase the current LDAR [inspection] frequency under this proposed rulemaking." Conventional Producers Exhibit No. 8, Proposed Combined VOC Rulemaking RAF No. 16, p. 25 of 36.

b. "Of the 71,229 conventional wells reporting production, only 303 are above the 15 barrel of oil equivalent per day (BOE/day) production threshold as reported in the Department's 2017 oil and gas production database and will have fugitive emissions component requirements." *Id*., Nos. 17, 24(c), pp.26, 33 of 36.

34. On July 27, 2020, Petitioner PIOGA submitted comments asserting that the proposed Combined VOC Rulemaking failed to comply with the mandates in Section 7(b) of Act 52 of 2016, 58 P.S. § 1207(b), 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.

Conventional Producers Exhibit No. 9.

35. On July 27, 2020, Petitioner PGCC submitted comments concluding that the proposed Combined VOC Rulemaking would not apply to conventional oil and gas operations, based on Section 7(b) of Act 52 and PGCC's understanding of the proposed

rulemaking RAF, particularly DEP's response to No. 14.[6] Conventional Producers Exhibit No. 10, p. 4.

36. On August 26, 2020, IRRC issued comments stating, with respect to DEP's response to request No. 28 in the RAF for the proposed Combined VOC Rulemaking:

> Commentators representing the oil and gas industry assert that the 2016 CTG are similar to performance standards developed for "new" or "modified" sources and question the appropriateness of applying these standards to existing sources (i.e. conventional oil and gas wells). We ask the EQB to explain how it determined that the proposed standards are appropriate for both the conventional and unconventional oil and gas industries in Pennsylvania.[7]

37. With respect to the statutory authority for the proposed Combined VOC Rulemaking, IRRC's August 26, 2020 comments stated that:

> Lawmakers and commentators state that the EQB has violated clear legislative directives by proposing a VOC emissions rule that includes requirements for conventional oil and gas well owners and operators, along with, not "separately and independently" from requirements for unconventional well operations. Also, the EQB has not prepared or submitted an RAF restricted to the need and impact of the rulemaking on the conventional oil and gas industry. Lawmakers request that the provisions that apply to the conventional oil and gas industry be withdrawn from the rulemaking. We ask the EQB to explain how it has and will comply with the legislative directives of the Act.

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[6] "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 RRA, Act 76 of 2012.)."

[7] IRRC's Comments are incorporated herein by reference, and are available at: http://www.irrc.state.pa.us/docs/3256/IRRC/3256%2008-26-20%20COMMENTS.pdf.

38. With respect to the scope of the proposed Combined VOC Rulemaking, IRRC's August 26, 2020 comments stated:

> Commentators representing the conventional oil and gas industry are uncertain whether the proposed regulation applies to conventional oil and gas operations in Pennsylvania. They say, the regulation includes some equipment which can be utilized in conventional oil and gas operations. but were informed that this regulation would not apply to their sector of the industry. We ask the EQB to clarify which provisions, if any apply to the conventional oil and gas industry and how that the proposal is consistent with Act 52 of 2016.

39. On March 15, 2022, EQB approved the final Combined VOC Rulemaking, Regulation #7-544, IRRC No. 3256.

40. On March 15, 2022, DEP submitted the final Combined VOC Rulemaking to IRRC and the Chairpersons of the House and Senate Environmental Resources & Energy Committees.

41. In its RAF responses for the final Combined VOC Rulemaking, DEP states that its RACT determinations are lawful and no regulatory alternatives were considered generally and, specifically, none can or should be provided to meet the particular needs of small businesses. Conventional Producers Exhibit No. 11, Final Combined VOC Rulemaking RAF Nos. 25, 26, 27(a) and 27(d), pp. 40-42 of 43.

42. In response to request No. 26 in the RAF for the final Combined VOC Rulemaking, DEP stated that "[n]o alternative regulatory provisions were considered. This final-form rulemaking is the least burdensome acceptable alternative." *Id*., p. 40

of 43.

43. In response to request No. 27(a) in the RAF for the final Combined VOC Rulemaking, DEP stated in the RAF that "[l]ess stringent compliance or reporting requirements are not available exclusively for small businesses." *Id.*, pp. 40-41 of 43.

44. In response to request No. 27(d) in the RAF for the final Combined VOC Rulemaking, DEP stated in the RAF that "[n]o special provisions are included for small businesses." *Id.*, p. 41-42 of 43.

45. In the RAF for the final Combined VOC Rulemaking, DEP stated that "the 2.7 TPY VOC emission threshold for storage vessels is RACT as it is technically and economically feasible for both potential to emit and actual emissions from all covered storage vessels at both conventional and unconventional well sites." *Id.*, RAF No. 11, p. 11 of 43.

46. In the RAF for the final Combined VOC Rulemaking, DEP stated "that it is both technically and economically feasible for an affected owner or operator to implement instrument-based LDAR inspections at a well site with an average production of 15 BOE or more per day, with the frequency of inspections based on the production from each individual well at the well site." *Id.*, p. 12 of 43.

47. It is the wells (located upon well sites) that produce BOEs, and without wells, well sites produce no BOEs.

48. In the RAF for the final Combined VOC Rulemaking, DEP estimated

there are approximately 37 well sites with no LDAR program currently in place that EQB assumes will be required to implement an annual LDAR program, at a total annualized cost of $62,192, or approximately $1,680 per well. Conventional Producers Exhibit No. 11, RAF No. 19, p. 34 of 43.

49. It is the wells (located upon well sites) that produce emissions addressed by LDAR programs and without wells, there is no purpose for LDAR programs at well sites.

50. In the final Combined VOC Rulemaking, DEP estimated that approximately 95 of 27,193 conventional well sites may need to implement a new LDAR program required by the final Combined VOC Rulemaking because those well sites produce at least 15 BOE per day, with at least one well producing a minimum of 5 BOE. Conventional Producers Exhibit No. 12, C&R Document, p. 12 of 210.

51. In the final Combined VOC Rulemaking, DEP estimated that, of the approximately 95 conventional well sites that may be required to implement a new LDAR program under the Final VOC Rule, 31 well sites would have to meet the annual instrument-based inspection requirement and the remaining 64 would have to meet the quarterly instrument-based inspection requirement. *Id*.

52. In the RAF for the final Combined VOC Rulemaking, DEP estimated that the total industry-wide cost for the 5,039 owners or operators of facilities subject to the Combined VOC Rulemaking of complying with the Combined VOC Rulemaking

would be about $31.7 million per year. Conventional Producers Exhibit No. 11, RAF No. 15, p. 28 of 43.

<u>DEP has had over six years to comply with Act 52 of 2016 but chose not to do so.</u>

53. On April 26, 2022, the House Environmental Resources and Energy (ERE) Committee sent a letter to IRRC disapproving the final Combined VOC Rulemaking and requesting IRRC's disapproval, as well as initiating the concurrent resolution process under Section 7(d) of the RRA, 71 P.S. § 745.7(d).

54. The April 26, 2022 letter stated the House ERE Committee's position that Act 52 requires the Board to submit two rulemaking packages — one that applies to unconventional oil and natural gas sources and one that applies to conventional oil and natural gas sources.

55. By letter dated May 4, 2022 to IRRC, DEP notified IRRC that the EQB was withdrawing the final Combined VOC Rulemaking from consideration at IRRC's May 19, 2022 public meeting.

56. DEP modified the withdrawn final Combined VOC Rulemaking by removing all applicable requirements related to the conventional oil and natural gas sources of VOC emissions installed at conventional oil and natural gas wells and well sites and resubmitted a revised final VOC rulemaking titled "Control of VOC Emissions from Unconventional Oil and Natural Gas Sources" (Unconventional VOC Regulation), Regulation #7-544, IRRC No. 3256, to the EQB for consideration and

approval at EQB's June 14, 2022 meeting.

57. On June 14, 2022, EQB adopted the final Unconventional VOC Regulation that is only applicable to unconventional oil and natural gas sources of VOC emissions installed at unconventional wells and well sites.

58. On June 16, 2022, DEP submitted the final Unconventional VOC Regulation to IRRC and the Chairpersons of the House and Senate Environmental Resources & Energy Committees.

59. On July 21, 2022, IRRC approved the final Unconventional VOC Regulation.

Respondents sought no input from the conventional oil and natural gas industry before submitting the final-omitted Conventional VOC Regulation with no changes from the Combined VOC Rulemaking.

60. On July 28, 2022, Conventional Producers emailed a letter to DEP Deputy Secretary for Waste, Air, Remediation and Radiation offering the conventional industry's assistance with DEP's previously stated intention to develop a separate rulemaking for the RACT requirements for sources of VOC emissions at Pennsylvania's conventional oil and gas facilities. The letter stated:

> 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.

Conventional Producers Exhibit No. 13.

61. Despite reading Conventional Producers' transmittal email on July 28th, neither the DEP Deputy Secretary nor anyone acting on his behalf or on DEP's behalf responded at any time prior or subsequent to submitting the Conventional VOC Regulation to EQB for approval to the Petitioners' offer of assistance:

> 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.

Conventional Producers Exhibit No. 13.

62. At no point during development of the Combined VOC Rulemaking or the Conventional VOC Regulation did DEP or EQB solicit information from the

Conventional Producers or CDAC concerning the development of the provisions applicable to VOC emission sources at conventional oil and gas wells and well sites.

63. On Saturday, October 8, 2022, DEP placed the Conventional VOC Regulation on EQB's online meeting agenda for approval at EQB's October 12, 2022 meeting as a final-omitted regulation, Regulation #7-579, IRRC No. 3359.

64. The RAF for the final-omitted Conventional VOC Regulation describes DEP meetings with advisory committees for the Combined VOC Rulemaking only. Conventional Producers Exhibit No. 2, RAF No. 14, pp. 27-28 of 45.

65. The C&R Document for the final-omitted Conventional VOC Regulation addresses the comments solicited on only the Proposed Combined VOC Rulemaking. *Id*., RAF No. 14, p. 28 of 45.

66. The RAF for the final-omitted Conventional VOC Regulation states that DEP does not have data on how many gathering and boosting stations and natural gas processing plants are used in the conventional industry and thus cannot include estimated VOC and methane emissions reductions from these sources. *Id*., RAF Nos. 10, p. 10 of 45, and 15, p. 29 of 45.

67. The RAF for the final-omitted Conventional VOC Regulation states that it is more stringent than the federal RACT recommendations based on "data specific to this Commonwealth" but does not provide or describe whether the data is relevant to conventional activities and operations. *Id*., RAF No. 11, p. 13 of 45.

68. The RAF for the final-omitted Conventional VOC Regulation does not include forms that will be required for implementation of the regulation.

69. The RAF for the final-omitted Conventional VOC Regulation is not restricted to the subject of conventional oil and gas well activities and operations.

70. On October 12, 2022, EQB approved the final-omitted Conventional VOC Regulation that is only applicable to conventional oil and natural gas sources of VOC emissions installed at conventional wells and well sites.

71. In the Executive Summary for the final-omitted Conventional VOC Regulation, DEP stated that "[w]hile the Board disagrees with the House ERE Committee's interpretation of Act 52 [in its April 26, 2022 letter], to address their concerns and avoid further delay, on May 4, 2022, the Board withdrew the combined rulemaking from IRRC's consideration." Conventional Producers Exhibit No. 2, RAF No. 9, p. 7.

72. In the Preamble for the final-omitted Conventional VOC Regulation, DEP stated that DEP developed the Conventional VOC Regulation "[g]iven the concerns expressed by the House ERE Committee and other commentators during the regulatory process for the combined rulemaking." Conventional Producers Exhibit No. 5, p. 2 of 50.

73. According to its Preamble, the final-omitted Conventional VOC Regulation imposes standards and requirements on owners or operators of VOC

emission sources at conventional oil and gas wells and well sites identical to those contained in the withdrawn final Combined VOC Rulemaking. *Id*.

74. The final-omitted Conventional VOC Regulation package approved by EQB includes the same comments and responses from the C&R Document that was included with the final Combined VOC Rulemaking. Conventional Producers Exhibit Nos. 2 (final-omitted), RAF No. 14, p. 28 of 45, and 11 (combined), RAF No. 14, p. 26 of 43.

75. The Preamble to the final-omitted Conventional VOC Regulation states that "[p]ublic notice and solicitation of public comments are impracticable, unnecessary, and contrary to the public interest for the amendments included in this final-omitted rulemaking" because:

a. "[T]he VOC RACT requirements for the conventional oil and natural gas sources covered by this final-omitted rulemaking are identical to those contained in the combined rulemaking."

b. "[T]his final-omitted rulemaking was already subject to a notice and comment process when the combined rulemaking was published in the *Pennsylvania Bulletin* on May 23, 2020," and "[t]hose comments were then used in the development of the final-form combined rulemaking and this final-omitted rulemaking."

c. "The comment and response document included with this final-omitted rulemaking contains all comments received during the comment period for the combined rulemaking."

d. "A public comment period is also contrary to the public interest because it will delay the implementation of the VOC RACT requirements in this final-omitted rulemaking, resulting in the Commonwealth being unable to satisfy the December 16, 2022, sanction deadline," which would mean "the Commonwealth would lose millions of dollars in Federal highway funding and much needed VOC and methane emission reductions."

Conventional Producers Exhibit No. 5, pp 7–8 of 50.

76. Section 7509 of the CAA (Sanctions and consequences of failure to attain) provides:

> (a) State failure
>
> For any implementation plan or plan revision required under this part (or required in response to a finding of substantial inadequacy as described in section 7410(k)(5) of this title), if the Administrator-
>
> > (1) finds that a State has failed, for an area designated nonattainment under section 7407(d) of this title, to submit a plan, or to submit 1 or more of the elements (as determined by the Administrator) required by the provisions of this chapter applicable to such an area, or has failed to make a submission for such an area that satisfies the minimum criteria established in relation to any such element under section 7410(k) of this title,
> >
> > . . . .
> >
> > unless such deficiency has been corrected within 18 months after the finding, disapproval, or determination referred to in paragraphs (1), (2), (3), and (4), one of the sanctions referred to in subsection (b) shall apply, as selected by the Administrator, until the Administrator determines that the State has come

> into compliance, except that if the Administrator finds a lack of good faith, sanctions under both paragraph (1) and paragraph (2) of subsection (b) shall apply until the Administrator determines that the State has come into compliance. If the Administrator has selected one of such sanctions and the deficiency has not been corrected within 6 months thereafter, sanctions under both paragraph (1) and paragraph (2) of subsection (b) shall apply **until the Administrator determines that the State has come into compliance**. In addition to any other sanction applicable as provided in this section, the Administrator may withhold all or part of the grants for support of air pollution planning and control programs that the Administrator may award under section 7405 of this title.

42 U.S.C. § 7509 (emphasis added).

77. On November 17, 2022, IRRC approved the final-omitted Conventional VOC Regulation, #7-579, IRRC No. 3359.

<u>The emergency certified final-omitted Conventional VOC Regulation imposed obligations on the Conventional Producers as of December 2, 2022.</u>

78. On November 22, 2022, DEP announced that EQB would consider adopting an emergency certified final-omitted Conventional VOC Regulation, #7-580, IRRC No. 3363, at a meeting on November 30, 2022.

79. The emergency certified final-omitted Conventional VOC Regulation is based upon the Governor's certification that:

> an immediate amendment to the regulations is necessary to prevent an emergency because the absence of a completed regulation and corresponding, complete SIP is a condition that will risk sanctions that will affect approximately 800 Million dollars in Federal highway funds and grants and will create the need for supplemental or deficiency appropriations greater than $1,000,000 to direct state funding to previously Federalized projects . . .

80. The emergency certified final-omitted Conventional VOC Regulation,

#7-580 (Annex A), and its RAF, Preamble and C&R Document, mirror the final-omitted Conventional VOC Regulation, #7-579 (Annex A), and its RAF, Preamble and C&R Document, that EQB adopted on October 12, 2022 and that IRRC approved on November 17, 2022.

81. In the RAFs for the final-omitted and emergency certified Conventional VOC Regulation, DEP estimated that the total industry-wide cost for the 4,719 owners or operators of facilities subject to the regulations of complying with the regulations would be about $9.8 million per year. Conventional Producers Exhibit Nos. 2 (RAF No. 15, p. 30 of 45) and 3 (RAF No.15, p. 31 of 46).

82. The C&R Documents for the final-omitted and emergency certified Conventional VOC Regulation state the same estimates stated above in Paragraphs 50 and 51 in the C&R Document for the final Combined VOC Rulemaking (Conventional Producers Exhibit No. 12). *See* Conventional Producers Exhibit No. 4, . 12 of 210.

83. On November 28, 2022, Conventional Producers submitted comments to EQB concerning the emergency certified final-omitted Conventional VOC Regulation. Conventional Producers Exhibit No. 14 (comment letter without attachments, which are already attached hereto as Conventional Producers Exhibit Nos. 9, 10 and 13).

84. On December 2, 2022, DEP provided notice that the emergency certified final-omitted Conventional VOC Regulation, #7-580, IRRC No. 3363, became

effective in accordance with 45 Pa.C.S. § 903 and 1 Pa. Code §13.74.

State Statutes Mandate Separate Regulatory Treatment of Conventional Oil and Natural Gas Wells.

85. As set forth at paragraphs 47 and 49 above, without conventional wells there would be no BOE's produced at conventional well sites nor would there be a purpose for LDAR programs at conventional well sites. Further, without producing conventional oil and gas wells, there would be no VOC emissions from natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, reciprocating compressors, centrifugal compressors, fugitive emissions components associated with the operation of conventional wells or storage vessels installed at conventional well sites.

86. Activities and operations at Pennsylvania's conventional oil and gas wells and well sites differ from those at unconventional gas wells and well sites in numerous respects, including the associated equipment and physical configurations, such as the use of centralized tank batteries for multiple wells, as well as the number of wells, the well-site footprint, the production volumes, and VOC emissions.

87. Act 126 of 2014, amending the Fiscal Code, Act 176 of 1929, P.L. 343,[8]

[8] Act 126 of 2014 P.L. 1053, Fiscal Code Omnibus Amendments, states:

Section 1741.1-E. Environmental Quality Board.

(a) Regulations.--From funds appropriated to the Environmental Quality Board, the board shall promulgate proposed regulations and regulations under 58 Pa.C.S. (relating to oil and gas) or other laws of this Commonwealth relating to conventional oil and gas wells separately from proposed regulations and regulations relating to unconventional gas wells. All regulations under 58 Pa.C.S. shall differentiate between conventional oil and gas wells and unconventional gas wells. Regulations and Act 52 of 2016, passed by the General Assembly and signed by Governors Corbett and Wolf, respectively, recognize the fundamental differences between activities and operations at conventional oil and gas wells and well sites, and those at unconventional gas wells and well sites that warrant and require separate and independent rulemaking.

88. On June 23, 2016, the Pennsylvania General Assembly passed, and Governor Tom Wolf signed, Act 52 of 2016, P.L. 379, No. 52, effective immediately.

89. Section 7(b) of Act 52 states:

> 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.

58 P.S. § 1207(b).

90. DEP has recognized differences between conventional and unconventional activities and historically has unconditionally exempted "conventional wells, wellheads, and all other associated equipment" from air permitting Plan Approval requirements of 25 Pa. Code §§ 127.11 and 127.12. Conventional Producers Exhibit No. 15, DEP Air Quality Permit Exemptions (excerpts from 2013, 2018, and 2021 lists).

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promulgated under this section shall apply to regulations promulgated on or after the effective date of this section.

91. DEP implemented the unconditional air permitting exemption from 25 Pa. Code §§ 127.11 and 127.12 after concluding that "conventional wellheads and associated equipment" are "[i]nherently low emitting." Conventional Producers Exhibit No. 16, PADEP, Air Quality Technical Advisory Committee, *Plan Approval and Operating Permit Exemptions: The Proposed Exemption Category Nos. 33 and 38* (February 14, 2013).

92. In the rulemaking packages for Regulation #7-544, #7-579 and #7-580, neither EQB nor DEP disputes the plain meaning of the terms "separately," "independently," and "restricted" as used in Section 7(b) of Act 52.

COUNT I
Declaratory Relief Concerning Use of Final-Omitted Rulemaking Process

93. The averments in Paragraphs 1-91 are hereby incorporated as if set forth fully herein.

94. Paragraphs 1-91 show that there is an actual controversy concerning whether the Respondent agencies' omitting public comment on the Conventional VOC Regulation was unlawful under Sections 201, 202, and 204(3) of the CDL, and that this controversy is ripe for consideration and disposition as a matter of law by this Court.

95. A regulation not promulgated in compliance with the requirements of the CDL is null and void. *Automotive Service Councils of Pennsylvania v. Larson*, 474 A.2d 404 (Pa. Cmwlth. 1984); *Com. v. Colonial Nissan, Inc.*, 691 A.2d 1005 (Pa.

Cmwlth. 1997).

96. Sections 201(4) and 202 of the CDL, 45 P.S. §§ 1201(4), 1202, require an agency to request "written comments by any interested person concerning" a proposed administrative regulation.

97. Respondents did not provide notice and comment opportunities for the final-omitted or emergency certified final-omitted Conventional VOC Regulation.

98. Section 204(3) of the CDL, 45 P.S. §§ 1204(3), allows an agency to omit the opportunity for written comment if "[t]he agency for good cause finds (and incorporates the finding and a brief statement of the reasons therefor in the order adopting the administrative regulation or change therein) that the procedures specified in sections 201 and 202 are in the circumstances impracticable, unnecessary, or contrary to the public interest."

99. The impracticable, unnecessary, or public interest exceptions in Section 204(3) do not apply to the notice and comment opportunities required for the Conventional VOC Regulation.

100. Notice and comment is necessary because conventional oil and natural gas configurations and operations differ substantially from unconventional natural gas configurations and operations, differences that require consideration and regulatory accommodation.

101. Notice and comment is necessary because DEP did not solicit necessary

and available information regarding feasible and lawful regulatory alternatives for small businesses.

102. Conventional Producers' opportunity to provide informed comment on the Combined VOC Rulemaking was hindered by the statements of DEP's Director of the Bureau of Oil and Gas Planning and Program Management at the January 2019 CDAC meeting that the VOC rulemaking would not impact the conventional industry "since the conventional wells typically do not cross the thresholds in place for methane emissions." *See* Paragraph 25 above and Conventional Producers Exhibit No. 7.

103. After the January 2019 CDAC meeting, DEP did not provide additional information for CDAC to evaluate as the DEP Director stated he would at the January 2019 meeting.

104. Conventional Producers' opportunity to provide informed comment on the final-omitted Conventional VOC Regulation was hindered after EQB withdrew the combined rulemaking on May 4, 2022 "given the concerns expressed by the House ERE committee" because, from May 4, 2022 until the final-omitted Conventional VOC Regulation was placed on EQB's online meeting agenda for approval at EQB's October 12, 2022 meeting, DEP did not request comments from interested parties, including Conventional Producers, despite Conventional Producers' offer by letter dated July 28, 2022, to provide assistance. *See* Conventional Producers Exhibit Nos. 6,

p. 2 of 51, and 13.

105. Respondents provided conclusory statements that notice and comment for the final-omitted and emergency certified final-omitted Conventional VOC Regulation was impracticable, unnecessary and contrary to public interest.

106. In previous matters, this Court has rejected each of Respondent agencies' reasons proffered to justify the use of the Section 204(3) process to omit comment on the final Conventional VOC Regulation.

107. In *Automotive Service Councils of Pennsylvania v. Larson*, this Court determined that meeting a federal court deadline was insufficient to justify the Pennsylvania Department of Transportation's (DOT) use of Section 204(3) of the CDL to omit the comment period because, as in this matter, the agency had sufficient time and opportunity before the federal deadline to allow written comment.[9] In other words, the agency could have complied with the CDL's required comment procedure and still met the federal deadline.

108. In *Com. v. Colonial Nissan, Inc.*, this Court rejected DOT's argument that the comment period was unnecessary and against the public interest because DOT "was merely readopting" existing regulations.[10]

109. In *Automotive Service*, this Court also rejected DEP's rationale in this matter that additional comment is unnecessary because it would not change the

[9] 474 A.2d at 405-06.
[10] 691 A.2d at 1009-10.

result.[11]

110. The public interest is not served by an unlawfully promulgated regulation.

111. Because the emergency certified final-omitted Conventional VOC Regulation was not promulgated in accordance with Sections 201, 202, and 204(3) of the CDL, it is null and void. *Automotive Service*; *Colonial Nissan*.

WHEREFORE, Conventional Producers respectfully request that the Court find and declare that:

1. the emergency certified final-omitted Conventional VOC Regulation was not properly promulgated and is therefore null and void; and
2. Respondent agencies may not enforce any final regulation concerning VOC emission sources at conventional oil and gas wells and well sites without complying with the notice and comment provisions of the CDL;

and provide any other relief the Court deems appropriate.

COUNT II
Declaratory Relief Concerning Applicability of Section 7(b) of Act 52 of 2016

112. The averments in Paragraphs 1-92 are hereby incorporated as if set forth fully herein.

113. Paragraphs 1-92 show that there is an actual controversy concerning

[11] 474 A.2d at 406.

whether the Respondent agencies violated Section 7(b) of Act 52 of 2016 when they undertook this rulemaking applicable *only* to the Pennsylvania conventional oil and natural gas industry but failed to:

a. consider the requirements applicable to emission sources installed at conventional oil and gas wells and well sites separately and independently from the requirements applicable to emission sources installed at unconventional gas wells and well sites, and

b. failed to submit to IRRC a RAF restricted to the subject of RACT for conventional oil and gas wells.

114. More specifically, there is an actual controversy whether the emergency certified final-omitted Conventional VOC Regulation—imposing requirements on owners or operators of VOC emission sources at conventional oil and gas wells and well sites —is a regulation "concerning conventional oil and gas wells" subject to the mandates of Section 7(b) of Act 52 of 2016.

115. Paragraphs 1-92 also show that that the controversy concerning the applicability of Section 7(b) of Act 52 is ripe for consideration and disposition as a matter of law by this Court.

116. The controversy in this matter presents a question of statutory interpretation that is squarely within this Court's jurisdiction, authority, and expertise to decide: Whether the plain meaning of the phrase "concerning conventional oil and

gas wells" in Section 7(b) of Act 52 of 2016 applies to a rulemaking concerning the Pennsylvania oil and natural gas industry that imposes requirements and obligations on owners and operators of conventional oil and gas wells and well sites and VOC emission sources located at the well sites.

117. The plain meaning of the phrase "concerning conventional oil and gas wells" in Section 7(b) of Act 52 of 2016 applies to a rulemaking concerning (i) the Pennsylvania oil and natural gas industry (ii) that imposes requirements and obligations on owners and operators of conventional oil and gas wells and well sites with VOC emission sources.

118. There is no conflict between EQB's obligations under Section 7(b) of Act 52 and Respondent agencies' obligations under the CAA and the EPA's 2016 O&G CTG.

119. Act 52, like the Regulatory Review Act, mandates a process, not an outcome.

120. Respondent agencies could have complied with both federal substantive law under the CAA and the 2016 O&G CTG and Pennsylvania procedural law mandated by Section 7(b) of Act 52, the RRA and the CDL, but they chose not to do so.

121. Respondent agencies' failure to comply with the mandates of Section 7(b) of Act 52 renders the emergency certified final-omitted Conventional VOC Regulation

null and void.

WHEREFORE, Conventional Producers respectfully request that the Court find and declare that:

1. the plain meaning of the phrase “any rulemaking concerning conventional oil and gas wells” in Section 7(b) of Act 52 of 2016 applies to a rulemaking concerning only the Pennsylvania oil and natural gas industry that imposes requirements and obligations on owners and operators of conventional oil and gas wells and well sites;
2. Respondent agencies failed to comply with the mandates of Section 7(b) of Act 52 of 2016 when undertaking the Combined VOC Rulemaking as well as the emergency certified final-omitted Conventional VOC Regulation derived from the Combined VOC Rulemaking;
3. the emergency certified final-omitted Conventional VOC Regulation was not promulgated in compliance with Section 7(b) of Act 52 of 2016;
4. the emergency certified final-omitted Conventional VOC Regulation is therefore null and void; and
5. DEP may not implement or enforce a final regulation concerning VOC emission sources at conventional oil and gas wells and well sites without complying with Section 7(b) of Act 52 of 2016.

and provide any other relief the Court deems appropriate.

Respectfully submitted,

BABST, CALLAND,
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/s/ Jean M. Mosites______________
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Date: December 5, 2022

VERIFICATION

I, Daniel J. Weaver, President and Executive Director of the Pennsylvania Independent Oil & Gas Association (PIOGA), hereby state that I am authorized to execute this Verification on its behalf, and that the averments of fact contained in the foregoing Petition for Review, as those facts have been made known to me, are true and correct to the best of my knowledge, information and belief. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Daniel J. Weaver

Date: December 5, 2022

VERIFICATION

I, David Clark, President of the Pennsylvania Grade Crude Oil Coalition, (PGCC), hereby state that I am authorized to execute this Verification on its behalf, and that the averments of fact contained in the foregoing Petition for Review, as those facts have been made known to me, are true and correct to the best of my knowledge, information and belief. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

David Clark

____

David Clark

Date: December 5, 2022

VERIFICATION

I, Mark Cline, President of the Pennsylvania Independent Petroleum Producers Association (PIPP), hereby state that I am authorized to execute this Verification on its behalf, and that the averments of fact contained in the foregoing Petition for Review, as those facts have been made known to me, are true and correct to the best of my knowledge, information and belief. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Mark Cline

Mark Cline

Date: December 5, 2022

Conventional Producers Exhibit No. 1

Annex A
TITLE 25. ENVIRONMENTAL PROTECTION
PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION
Subpart C. PROTECTION OF NATURAL RESOURCES
ARTICLE III. AIR RESOURCES
CHAPTER 129. STANDARDS FOR SOURCES

Control of VOC Emissions from Conventional Oil and Natural Gas Sources

(*Editor's Note*: Sections 129.131—129.140 are proposed to be added and are printed in regular type to enhance readability.)

§ 129.131. General provisions and applicability.

(a) *Applicability*. Beginning **______**(*Editor's Note*: The blank refers to the effective date of this rulemaking.), this section and §§ 129.132—129.140 apply to an owner or operator of one or more of the following conventional oil and natural gas sources of VOC emissions installed at a conventional well site, a gathering and boosting station or a natural gas processing plant in this Commonwealth which were constructed on or before ______ (*Editor's Note*: The blank refers to the effective date of this rulemaking.):

(1) Storage vessels at:

(i) A conventional well site.

(ii) A gathering and boosting station.

(iii) A natural gas processing plant.

(iv) The natural gas transmission and storage segment.

(2) Natural gas-driven continuous bleed pneumatic controllers.

(3) Natural gas-driven diaphragm pumps.

(4) Reciprocating compressors and centrifugal compressors.

(5) Fugitive emissions components.

(b) *Existing RACT permit*. Compliance with the requirements of this section and §§ 129.132—129.140 assures compliance with the requirements of a permit issued under §§ 129.91—129.95 (relating to stationary sources of NO_x and VOCs) or §§ 129.96—129.100 (relating to additional RACT requirements for major sources of NO_x and VOCs) to the owner or operator of a source subject to subsection (a) prior to **______**(*Editor's Note*: The blank refers to the effective date of this rulemaking.), to control, reduce or minimize VOC emissions from oil and natural gas sources listed in subsection (a), except to the extent the operating permit contains more stringent requirements.

§ 129.132. Definitions, acronyms and EPA methods.

(a) *Definitions and acronyms*. The following words and terms, when used in this section, §§ 129.131 (relating to general provisions and applicability) and 129.133—129.140, have the following meanings, unless the context clearly indicates otherwise:

AVO—Audible, visual and olfactory.

Bleed rate—The rate in standard cubic feet per hour at which natural gas is continuously vented from a natural gas-driven continuous bleed pneumatic controller.

Centrifugal compressor—

(i) A machine for raising the pressure of natural gas by drawing in low-pressure natural gas and discharging significantly higher pressure natural gas by means of mechanical rotating vanes or impellers.

(ii) The term does not include a screw compressor, sliding vane compressor or liquid ring compressor.

Closed vent system—A system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.

Condensate—Hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature, pressure, or both, and remains liquid at standard conditions.

Connector—

(i) A flanged fitting, screwed fitting or other joined fitting used to connect two pipes or a pipe and a piece of process equipment or that closes an opening in a pipe that could be connected to another pipe.

(ii) The term does not include a joined fitting welded completely around the circumference of the interface.

Control device—An enclosed combustion device, vapor recovery system or flare.

Conventional well—

(i) A bore hole drilled or being drilled for the purpose of or to be used for construction of a well regulated under 58 Pa.C.S. §§ 3201—3274 (relating to development) that is not an unconventional well, irrespective of technology or design.

(ii) The term includes, but is not limited to:

(A) Wells drilled to produce oil.

(B) Wells drilled to produce natural gas from formations other than shale formations.

(C) Wells drilled to produce natural gas from shale formations located above the base of the Elk Group or its stratigraphic equivalent.

(D) Wells drilled to produce natural gas from shale formations located below the base of the Elk Group where natural gas can be produced at economic flow rates or in economic volumes without the use of vertical or nonvertical well bores stimulated by hydraulic fracture treatments or multilateral well bores or other techniques to expose more of the formation to the well bore.

(E) Irrespective of formation, wells drilled for collateral purposes, such as monitoring, geologic logging, secondary and tertiary recovery or disposal injection.

Conventional Well Site—A location with exclusively one or more conventional wells. A location with both unconventional and conventional wells is considered to be an unconventional well site.

Custody transfer—The transfer of natural gas after processing or treatment, or both, in the producing operation or from a storage vessel or an automatic transfer facility or other equipment, including a product loading rack, to a pipeline or another form of transportation.

Deviation—An instance in which the owner or operator of a source subject to this section, §§ 129.131 and 129.133—129.140 fails to meet one or more of the following:

(i) A requirement or an obligation established in this section, § 129.131 or §§ 129.133—129.140, including an emission limit, operating limit or work practice standard.

(ii) A term or condition that is adopted to implement an applicable requirement in this section, § 129.131 or §§ 129.133—129.140 and which is included in the operating permit for the affected source.

(iii) An emission limit, operating limit or work practice standard in this section, § 129.131 or §§ 129.133—129.140 during startup, shutdown or malfunction, regardless of whether a failure is permitted by this section, § 129.131 or §§ 129.133—129.140.

FID—Flame ionization detector.

First attempt at repair—For purposes of § 129.137 (relating to fugitive emissions components):

(i) An action using best practices taken to stop or reduce fugitive emissions to the atmosphere.

(ii) The term includes:

(A) Tightening bonnet bolts.

(B) Replacing bonnet bolts.

(C) Tightening packing gland nuts.

(D) Injecting lubricant into lubricated packing.

Flare—

(i) A thermal oxidation system using an open flame without an enclosure.

(ii) The term does not include a horizontally or vertically installed ignition device or pit flare used to combust otherwise vented emissions from completions.

Flow line—A pipeline used to transport oil or gas, or both, to processing equipment, compression equipment, storage vessel or other collection system for further handling or to a mainline pipeline.

Fugitive emissions component—

(i) A piece of equipment that has the potential to emit fugitive emissions of VOC at a well site, including the following:

(A) A valve.

(B) A connector.

(C) A pressure relief device.

(D) An open-ended line.

(E) A flange.

(F) A compressor.

(G) An instrument.

(H) A meter.

(I) A cover or closed vent system not subject to § 129.138 (relating to covers and closed vent systems).

(J) A thief hatch or other opening on a controlled storage vessel not subject to § 129.133 (relating to storage vessels).

(ii) The term does not include a device, such as a natural gas-driven continuous bleed pneumatic controller or a natural gas-driven diaphragm pump, that vents as part of normal operations if the gas is discharged from the device's vent.

GOR—Gas-to-oil ratio—The ratio of the volume of gas at standard temperature and pressure that is produced from a volume of oil when depressurized to standard temperature and pressure.

Gathering and boosting station—

(i) A permanent combination of one or more compressors that collects natural gas from one or more well sites and moves the natural gas at increased pressure into a gathering pipeline to the natural gas processing plant or into the pipeline.

(ii) The term does not include the combination of one or more compressors located at a well site or located at an onshore natural gas processing plant.

Hard-piping—Pipe or tubing that is manufactured and properly installed using good engineering judgment and standards.

Hydraulic fracturing—The process of directing pressurized fluids containing a combination of water, proppant and added chemicals to penetrate tight formations, such as shale or coal formations, that subsequently require high rate, extended flowback to expel fracture fluids and solids during a completion.

Hydraulic refracturing—Conducting a subsequent hydraulic fracturing operation at a well that has previously undergone a hydraulic fracturing operation.

In-house engineer—An individual who is both of the following:

(i) Employed by the same owner or operator as the responsible official that signs the certification required under § 129.140(k) (relating to recordkeeping and reporting).

(ii) Qualified by education, technical knowledge and expertise in the design and operation of a natural gas-driven diaphragm pump or closed vent system to make the technical certification required under § 129.135(c)(3)(ii) (relating to natural gas driven diaphragm pumps) or § 129.138(c)(3), or both, as applicable.

Intermediate hydrocarbon liquid—A naturally occurring, unrefined petroleum liquid.

LDAR—Leak detection and repair.

Leak—An emission detected using one or more of the following methods:

(i) Through audible, visual or odorous evidence during an AVO inspection.

(ii) By OGI equipment calibrated according to § 129.137(h) (relating to fugitive emissions components).

(iii) With a concentration of 500 ppm or greater as methane or equivalent by a gas leak detector calibrated according to § 129.137(i).

(iv) Using an alternative leak detection method approved by the Department in § 129.137(c)(2)(ii)(C), (c)(3)(ii)(C) or (e)(2)(iii).

Maximum average daily throughput—The single highest daily average throughput during the 30-day potential to emit evaluation period employing generally accepted methods.

Monitoring system malfunction—

(i) A sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data.

(ii) The term does not include a system failure caused by poor maintenance or careless operation.

Natural gas distribution segment—The delivery of natural gas to the end user by a distribution company after the distribution company receives the natural gas from the natural gas transmission and storage segment.

Natural gas-driven diaphragm pump—

(i) A positive displacement pump powered by pressurized natural gas that uses the reciprocating action of flexible diaphragms in conjunction with check valves to pump a fluid.

(ii) The term does not include either of the following:

(A) A pump in which a fluid is displaced by a piston driven by a diaphragm.

(B) A lean glycol circulation pump that relies on energy exchange with the rich glycol from the contactor.

Natural gas-driven continuous bleed pneumatic controller—An automated instrument used for maintaining a process condition such as liquid level, pressure, delta-pressure or temperature powered by a continuous flow of pressurized natural gas.

Natural gas liquids—The hydrocarbons, such as ethane, propane, butane and pentane that are extracted from field gas.

Natural gas processing plant—

(i) A processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both.

(ii) The term does not include a Joule-Thompson valve, a dew point depression valve or an isolated or standalone Joule-Thompson skid.

Natural gas transmission and storage segment—The term includes the following:

(i) The pipelines used for the long-distance transport of natural gas, excluding processing.

(ii) The natural gas transmission stations which include the following:

(a) The land, mains, valves, meters, boosters, regulators, storage vessels, dehydrators and compressors.

(b) The driving units and appurtenances associated with the items listed in clause (a).

(c) The equipment used for transporting gas from a production plant, delivery point of purchased gas, gathering system, storage area or other wholesale source of gas to one or more distribution areas.

(iii) The aboveground storage facilities and underground storage facilities that transport and store natural gas between the natural gas processing plant and natural gas distribution segment.

OGI—Optical gas imaging.

Open-ended valve or *line*—A valve, except a safety relief valve, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Produced water—Water that is extracted from the earth from an oil or natural gas production well or that is separated from crude oil, condensate or natural gas after extraction.

Qualified professional engineer—

(i) An individual who is licensed by a state as a Professional Engineer to practice one or more disciplines of engineering and who is qualified by education, technical knowledge and experience to make the required specific technical certification.

(ii) The individual making this certification must be currently licensed in this Commonwealth or another state in which the responsible official, as defined in § 121.1 (relating to definitions), is located and with which the Commonwealth offers reciprocity.

Quality assurance or *quality control activity*—An activity such as a system accuracy audit and a zero and span adjustment that ensures the proper calibration and operation of monitoring equipment.

Reciprocating compressor—A piece of equipment that employs linear movement of a driveshaft to increase the pressure of a process gas by positive displacement.

Reciprocating compressor rod packing—

(i) A series of flexible rings in machined metal cups that fit around the reciprocating compressor piston rod to create a seal limiting the amount of compressed natural gas that escapes to the atmosphere.

(ii) Another mechanism that provides the same function.

Removed from service—A storage vessel that has been physically isolated and disconnected from the process for a purpose other than maintenance.

Repaired—A piece of equipment that is adjusted or otherwise altered to eliminate a leak and is remonitored to verify that emissions from the equipment are at or below the applicable leak limitation.

Returned to service—A storage vessel that was removed from service which has been:

(i) Reconnected to the original source of liquids or has been used to replace another storage vessel.

(ii) Installed in another location and introduced with crude oil, condensate, intermediate hydrocarbon liquids or produced water.

Routed to a process or *route to a process*—The emissions are conveyed by means of a closed vent system to an enclosed portion of a process that is operational where the emissions are controlled in one or more of the following ways:

(i) Predominantly recycled or consumed, or both, in the same manner as a material that fulfills the same function in the process.

(ii) Transformed by chemical reaction into materials that are not regulated.

(iii) Incorporated into a product.

(iv) Recovered for beneficial use.

Sensor—A device that measures a physical quantity or the change in a physical quantity such as temperature, pressure, flow rate, pH or liquid level.

Storage vessel—

(i) A container used to collect crude oil, condensate, intermediate hydrocarbon liquids or produced water that is constructed primarily of non-earthen materials which provide structural support.

(ii) The term includes a container described in subparagraph (i) that is skid-mounted or permanently attached to something that is mobile which has been located at a site for 180 or more consecutive days.

(iii) The term does not include the following:

(A) A process vessel such as a surge control vessel, bottoms receiver or knockout vessel.

(B) A pressure vessel used to store a liquid or a gas and is designed to operate in excess of 204.9 kilopascals (29.7 pounds per square inch, absolute) and to not vent to the atmosphere as a result of compression of the vapor headspace during filling of the vessel.

(C) A container described in subparagraph (i) with a capacity greater than 100,000 gallons used to recycle water that has been passed through two-stage separation.

Surface site—A combination of one or more graded pad sites, gravel pad sites, foundations, platforms or the immediate physical location upon which equipment is physically affixed.

TOC—Total organic compounds—The results of EPA Method 25A.

UIC—Underground injection control.

UIC Class I Oilfield Disposal Well—A well with a UIC Class I permit that meets the definition in 40 CFR 144.6(a)(2) (relating to classification of wells) and receives eligible fluids from oil and natural gas exploration and production operations.

UIC Class II Oilfield Disposal Well—A well with a UIC Class II permit where wastewater resulting from oil and natural gas production operations is injected into underground porous rock formations not productive of oil or gas and sealed above and below by unbroken, impermeable strata.

Unconventional formation— A geological shale formation existing below the base of the Elk Sandstone or its geologic equivalent stratigraphic interval where natural gas generally cannot be produced at economic flow rates or in economic volumes except by vertical or horizontal well bores stimulated by hydraulic fracture treatments or by using multilateral well bores or other techniques to expose more of the formation to the well bore.

Unconventional well—A bore hole drilled or being drilled for the purpose of or to be used for the production of natural gas from an unconventional formation.

Unconventional well site—A location with one or more unconventional wells.

VRU—Vapor recovery unit—A device used to recover vapor and route it to a process, flow line or other equipment.

Well—A hole drilled for producing oil or natural gas or into which a fluid is injected.

Wellhead—

(i) The piping, casing, tubing and connected valves protruding above the earth's surface for an oil or natural gas well.

(ii) The wellhead ends where the flow line connects to a wellhead valve.

(iii) The term does not include other equipment at the well site except for a conveyance through which gas is vented to the atmosphere.

Well site—

(i) One or more surface sites that are constructed for the drilling and subsequent operation of a conventional well or injection well.

(ii) For purposes of the fugitive emissions standards in § 129.137, the term also means a separate tank battery surface site collecting crude oil, condensate, intermediate hydrocarbon liquids or produced water from a well not located at the well site, for example, a centralized tank battery.

(iii) For purposes of the fugitive emissions standards in § 129.137, the term does not include:

(A) A UIC Class I Oilfield Disposal Well.

(B) A UIC Class II Oilfield disposal well and disposal facility.

(C) The flange immediately upstream of the custody meter assembly.

(D) Equipment, including fugitive emissions components, located downstream of the flange in clause (C).

(b) *EPA methods*. The EPA methods referenced in this section and §§ 129.133—129.140, are those listed as follows, unless the context clearly indicates otherwise:

EPA Method 1—EPA Method 1, 40 CFR Part 60, Appendix A-1 (relating to test methods 1 through 2F), regarding sample and velocity traverses for stationary sources.

EPA Method 1A—EPA Method 1A, 40 CFR Part 60, Appendix A-1, regarding sample and velocity traverses for stationary sources with small stacks or ducts.

EPA Method 2—EPA Method 2, 40 CFR Part 60, Appendix A-1, regarding determination of stack gas velocity and volumetric flow rate (Type S pitot tube).

EPA Method 2A—EPA Method 2A, 40 CFR Part 60, Appendix A-1, regarding direct measurement of gas volume through pipes and small ducts.

EPA Method 2C—EPA Method 2C, 40 CFR Part 60, Appendix A-1, regarding determination of gas velocity and volumetric flow rate in small stacks or ducts (standard pitot tube).

EPA Method 2D—EPA Method 2D, 40 CFR Part 60, Appendix A-1, regarding measurement of gas volume flow rates in small pipes and ducts.

EPA Method 3A—EPA Method 3A, 40 CFR Part 60, Appendix A-2 (relating to test methods 2G through 3C), regarding determination of oxygen and carbon dioxide concentrations in emissions from stationary sources (instrumental analyzer procedure).

EPA Method 3B—EPA Method 3B, 40 CFR Part 60, Appendix A-2, regarding gas analysis for the determination of emission rate correction factor or excess air.

EPA Method 4—EPA Method 4, 40 CFR Part 60, Appendix A-3 (relating to test methods 4 through 5I), regarding determination of moisture content in stack gases.

EPA Method 18—EPA Method 18, 40 CFR Part 60, Appendix A-6 (relating to test methods 16 through 18), regarding measurement of gaseous organic compound emissions by gas chromatography.

EPA Method 21—EPA Method 21, 40 CFR Part 60, Appendix A-7 (relating to test methods 19 through 25E), regarding determination of volatile organic compound leaks.

EPA Method 22—EPA Method 22, 40 CFR Part 60, Appendix A-7, regarding visual determination of fugitive emissions from material sources and smoke emissions from flares.

EPA Method 25A—EPA Method 25A, 40 CFR Part 60, Appendix A-7, regarding determination of total gaseous organic concentration using a flame ionization analyzer.

§ 129.133. Storage vessels.

(a) *Applicability*.

(1) *Potential VOC emissions*. Except as specified in subsections (c) and (d), this section applies to the owner or operator of a storage vessel subject to § 129.131(a)(1) (relating to general provisions and applicability) that has the potential to emit 2.7 TPY or greater VOC emissions**.**

(2) *Calculation of potential VOC emissions*.

(i) The potential VOC emissions in paragraph (1) must be calculated using a generally accepted model or calculation methodology, based on the maximum average daily throughput as defined in § 129.132 (relating to definitions, acronyms and EPA methods) prior to _____ (*Editor's Note*: The blank refers to the date 60 days after the effective date of this rulemaking.) for an existing storage vessel.

(ii) The determination of potential VOC emissions may consider requirements under a legally and practically enforceable limit established in an operating permit or plan approval approved by the Department.

(iii) Vapor from the storage vessel that is recovered and routed to a process through a VRU is not required to be included in the determination of potential VOC emissions for purposes of determining applicability, if the owner or operator meets the following:

(A) The cover requirements in § 129.138(a) (relating to covers and closed vent systems).

(B) The closed vent system requirements in § 129.138(b).

(iv) If the apparatus that recovers and routes vapor to a process is removed from operation or is operated inconsistently with § 129.138, the owner or operator shall determine the storage vessel's potential VOC emissions under this paragraph within 30 calendar days of the date of apparatus removal or inconsistent operation.

(b) *VOC emissions limitations and control requirements*. Except as specified in subsections (c) and (d), beginning _____ (*Editor's Note*: The blank refers to the date 1 year after the effective date of this rulemaking.), the owner or operator of a storage vessel subject to this section shall reduce VOC emissions by 95.0% by weight or greater. The owner or operator shall comply with paragraph (1) or paragraph (2) as applicable.

(1) *Route the VOC emissions to a control device*. The owner or operator shall do the following:

(i) Equip the storage vessel with a cover that meets the requirements of § 129.138(a).

(ii) Connect the storage vessel to a control device or process through a closed vent system that meets the requirements of § 129.138(b).

(iii) Route the emissions from the storage vessel to a control device or a process that meets the applicable requirements of § 129.139 (relating to control devices).

(iv) Demonstrate that the VOC emissions are reduced as specified in § 129.139(k).

(2) *Equip the storage vessel with a floating roof*. The owner or operator shall install a floating roof that meets the requirements of 40 CFR 60.112b(a)(1) or (2) (relating to standard for volatile organic compounds (VOC)) and the relevant monitoring, inspection, recordkeeping and reporting requirements in 40 CFR Part 60, Subpart Kb (relating to standards of performance for volatile

organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984).

(c) *Exceptions*.

(1) The emissions limitations and control requirements in subsection (b) do not apply to the owner or operator of a storage vessel that maintains actual VOC emissions less than 2.7 TPY determined as a 12-month rolling sum. An owner or operator claiming this exception shall perform the compliance demonstration requirements under paragraph (2) and maintain the records under subsection (g), as applicable.

(2) The owner or operator of a storage vessel claiming exception under this subsection shall perform the following:

(i) Beginning on or before _____ (*Editor's Note:* The blank refers to the date 30 days after the effective date of this rulemaking.), calculate the actual VOC emissions once per calendar month using a generally accepted model or calculation methodology. The monthly calculations must meet the following:

(A) Be separated by at least 15 calendar days but not more than 45 calendar days.

(B) Be based on the monthly average throughput for the previous 30 calendar days.

(ii) Comply with subsection (b) within 1 year of the date of the monthly calculation showing that actual VOC emissions from the storage vessel have increased to 2.7 TPY VOC or greater.

(d) *Exemptions*. The emissions limitations and control requirements in subsection (b) do not apply to the owner or operator of a storage vessel that meets one or more of the following:

(1) Is skid-mounted or permanently attached to something that is mobile for which records are available to document that it has been located at a site for less than 180 consecutive days. An owner or operator claiming this exemption shall maintain the records under subsection (g), as applicable.

(2) Is used in the natural gas distribution segment.

(3) Is controlled under 40 CFR Part 60, Subpart Kb or 40 CFR Part 63, Subpart G, Subpart CC, Subpart HH or Subpart WW.

(e) *Requirements for a storage vessel removed from service*. A storage vessel subject to this section that is removed from service is not an affected source for the period that it is removed from service if the owner or operator performs the following:

(1) Completely empties and degasses the storage vessel so that the storage vessel no longer contains crude oil, condensate, produced water or intermediate hydrocarbon liquids. A storage

vessel where liquid is left on walls, as bottom clingage or in pools due to floor irregularity is considered to be completely empty.

(2) Submits a notification in the next annual report required under § 129.140(k)(1) (relating to recordkeeping and reporting) identifying each storage vessel removed from service during the reporting period and the date of its removal from service.

(f) *Requirements for a storage vessel returned to service*. The owner or operator of a storage vessel identified in subsection (e) that is returned to service shall submit a notification in the next annual report required under § 129.140(k)(1) identifying each storage vessel that has been returned to service during the reporting period and the date of its return to service.

(g) *Recordkeeping and reporting requirements*. The owner or operator of a storage vessel subject to this section shall maintain the records under § 129.140(b) and submit the reports under § 129.140(k)(3)(i).

§ 129.134. Natural gas-driven continuous bleed pneumatic controllers.

(a) *Applicability*. This section applies to the owner or operator of a natural gas-driven continuous bleed pneumatic controller subject to § 129.131(a)(2) (relating to general provisions and applicability) located prior to the point of custody transfer of oil to an oil pipeline or of natural gas to the natural gas transmission and storage segment.

(b) *Exception*. An owner or operator may use a natural gas-driven continuous bleed pneumatic controller subject to this section with a bleed rate greater than the applicable requirements in subsection (c) based on functional requirements. An owner or operator claiming this exception shall perform the compliance demonstration requirements under subsection (d) and maintain the records under subsection (e), as applicable.

(c) *VOC emissions limitation requirements*. Except as specified in subsection (b), beginning _____ (*Editor's Note*: The blank refers to the date 1 year after the effective date of this rulemaking.), the owner or operator of a natural gas-driven continuous bleed pneumatic controller subject to this section shall do the following:

(1) Ensure each natural gas-driven continuous bleed pneumatic controller with a natural gas bleed rate greater than 6.0 standard cubic feet per hour, at a location other than a natural gas processing plant, maintains a natural gas bleed rate of less than or equal to 6.0 standard cubic feet per hour.

(2) Ensure each natural gas-driven continuous bleed pneumatic controller maintains a natural gas bleed rate of zero standard cubic feet per hour, if located at a natural gas processing plant.

(3) Perform the compliance demonstration requirements under subsection (d).

(d) *Compliance demonstration requirements*. The owner or operator shall tag each natural gas-driven continuous bleed pneumatic controller affected under subsection (c) with the following:

(1) The date the natural gas-driven continuous bleed pneumatic controller is required to comply with this section.

(2) An identification number that ensures traceability to the records for that natural gas-driven continuous bleed pneumatic controller.

(e) *Recordkeeping and reporting requirements*. The owner or operator of a natural gas-driven continuous bleed pneumatic controller affected under subsection (c) shall maintain the records under § 129.140(c) (relating to recordkeeping and reporting) and submit the reports under § 129.140(k)(3)(ii).

§ 129.135. Natural gas-driven diaphragm pumps.

(a) *Applicability*. This section applies to the owner or operator of a natural gas-driven diaphragm pump subject to § 129.131(a)(3) (relating to general provisions and applicability) located at a well site or natural gas processing plant.

(b) *VOC emissions limitation and control requirements*. Except as specified in subsections (c) and (d), beginning _____ (*Editor's Note*: The blank refers to the date 1 year after the effective date of this rulemaking.), the owner or operator of a natural gas-driven diaphragm pump subject to this section shall comply with the following:

(1) *Conventional well site*. The owner or operator of a natural gas-driven diaphragm pump located at a conventional well site shall reduce the VOC emissions by 95.0% by weight or greater. The owner or operator shall do the following:

(i) Connect the natural gas-driven diaphragm pump to a control device or process through a closed vent system that meets the applicable requirements of § 129.138(b) (relating to covers and closed vent systems).

(ii) Route the emissions from the natural gas-driven diaphragm pump to a control device or a process that meets the applicable requirements of § 129.139 (relating to control devices).

(iii) Demonstrate that the VOC emissions are reduced as specified in § 129.139(k).

(2) *Natural gas processing plant*. The owner or operator of a natural gas-driven diaphragm pump located at a natural gas processing plant shall maintain an emission rate of zero standard cubic feet per hour.

(c) *Exceptions*. The emissions limitations and control requirements in subsection (b) do not apply to the owner or operator of a natural gas-driven diaphragm pump located at a well site which meets one or more of the following:

(1) Routes emissions to a control device which is unable to reduce VOC emissions by 95.0% by weight or greater and there is no ability to route VOC emissions to a process. An owner or operator that claims this exception shall do the following:

(i) Maintain the records under § 129.140(d)(4) (relating to recordkeeping and reporting).

(ii) Connect the natural gas-driven diaphragm pump to the control device through a closed vent system that meets the requirements of § 129.138(b).

(iii) Demonstrate the percentage by which the VOC emissions are reduced as specified in § 129.139(k).

(2) Has no available control device or process. An owner or operator that claims this exception shall do the following:

(i) Maintain the records under § 129.140(d)(5).

(ii) Certify that there is no available control device or process in the next annual report required by § 129.140(k)(1).

(iii) Route emissions from the natural gas-driven diaphragm pump within 30 days of the installation of a control device or process. Once the emissions are routed to a control device or process, the certification of subparagraph (ii) is no longer required and the applicable requirements of this section shall be met.

(3) Is technically infeasible of connecting to a control device or process. An owner or operator that claims this exception shall do the following:

(i) Maintain the records under § 129.140(d)(6).

(ii) Perform an assessment of technical infeasibility which must meet the following:

(A) Be prepared under the supervision of an in-house engineer or qualified professional engineer.

(B) Include a technical analysis of safety considerations, the distance from an existing control device, the pressure losses and differentials in the closed vent system and the ability of the control device to handle the increase in emissions routed to them.

(C) Be certified, signed, and dated by the engineer supervising the assessment, including the statement: "I certify that the assessment of technical infeasibility was prepared under my supervision. I further certify that the assessment was conducted, and this report was prepared under the requirements of 25 Pa. Code § 129.135(c)(3). Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information."

(d) *Exemptions*. The emissions limitations and control requirements in subsection (b) do not apply to the owner or operator of a natural gas-driven diaphragm pump located at a well site which operates less than 90 days per calendar year. An owner or operator claiming this exemption shall maintain the records under § 129.140(d)(3).

(e) *Removal of control device or process*. The owner or operator of a natural gas-driven diaphragm pump located at a well site that routes emissions to a control device or process which is removed or is no longer available shall comply with one of the exceptions in subsection (c), as applicable.

(f) *Recordkeeping and reporting requirements*. The owner or operator of a natural gas-driven diaphragm pump subject to this section shall maintain the records under § 129.140(d) and submit the reports under § 129.140(k)(3)(iii).

§ 129.136. Compressors.

(a) *Applicability*. This section applies to the owner or operator of a reciprocating compressor or centrifugal compressor subject to § 129.131(a)(4) (relating to general provisions and applicability) that meets the following:

(1) *Reciprocating compressor*. Each reciprocating compressor located between the wellhead and point of custody transfer to the natural gas transmission and storage segment.

(2) *Centrifugal compressor*. Each centrifugal compressor using wet seals that is located between the wellhead and point of custody transfer to the natural gas transmission and storage segment.

(b) *VOC emissions control requirements for a reciprocating compressor*. Beginning _____ (*Editor's Note*: The blank refers to the date 1 year after the effective date of this rulemaking.), the owner or operator of a reciprocating compressor subject to this section shall meet one of the following:

(1) Replace the reciprocating compressor rod packing on or before one of the following:

(i) The reciprocating compressor has operated for 26,000 hours. The number of hours of operation must be continuously monitored beginning on the later of:

(A) The date of the most recent reciprocating compressor rod packing replacement.

(B) ______ (*Editor's Note*: The blank refers to the effective date of this rulemaking.), for a reciprocating compressor rod packing that has not yet been replaced.

(ii) The reciprocating compressor has operated for 36 months. The number of months of operation must be continuously monitored beginning on the later of:

(A) The date of the most recent reciprocating compressor rod packing replacement.

(B) ______ (*Editor's Note*: The blank refers to the date 36 months after the effective date of this rulemaking.), for a reciprocating compressor rod packing that has not yet been replaced.

(2) Route the VOC emissions to a control device or a process that meets § 129.139 (relating to control devices) by using a reciprocating compressor rod packing emissions collection system that operates under negative pressure and meets the cover requirements of § 129.138(a) (relating to covers and closed vent systems) and the closed vent system requirements of § 129.138(b).

(c) *VOC emissions limitation and control requirements for a centrifugal compressor*. Except as specified in subsection (d), the owner or operator of a centrifugal compressor subject to this section shall perform the following:

(1) Reduce the VOC emissions from each centrifugal compressor wet seal fluid degassing system by 95.0% by weight or greater.

(2) Equip the wet seal fluid degassing system with a cover that meets the requirements of § 129.138(a) through a closed vent system that meets the requirements of § 129.138(b) to a control device or a process that meets the applicable requirements of § 129.139.

(3) Demonstrate that the VOC emissions are reduced as specified in § 129.139(k).

(d) *Exemptions*. Subsection (c) does not apply to the owner or operator of a centrifugal compressor that meets the following:

(1) Is located at a well site.

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

(e) *Recordkeeping and reporting requirements*. The owner or operator of a reciprocating compressor or centrifugal compressor subject to this section shall do the following, as applicable:

(1) For a reciprocating compressor, maintain the records under § 129.140(e) (relating to recordkeeping and reporting) and submit the reports under § 129.140(k)(3)(iv).

(2) For a centrifugal compressor, maintain the records under § 129.140(f) and submit the reports under § 129.140(k)(3)(v).

§ 129.137. Fugitive emissions components.

(a) *Applicability*. This section applies to the owner or operator of a fugitive emissions component subject to § 129.131(a)(5) (relating to general provisions and applicability), located at one or more of the following:

(1) A conventional well site.

(2) A natural gas gathering and boosting station.

(3) A natural gas processing plant.

(b) *Average production calculation procedure for a well site.* Beginning on or before _____ (*Editor's Note:* The blank refers to the date 30 days after the effective date of this rulemaking.):

(1) The owner or operator of a well site subject to subsection (a)(1) shall calculate the average production in barrels of oil equivalent per day of the well site using the previous 12 calendar months of operation as reported to the Department and thereafter as specified in subsection (c)(4) for the previous calendar year. The owner or operator shall do the following:

(i) For each well at the well site with production reported to the Department:

(A) Record the barrels of oil produced for each active well.

(B) Convert the natural gas production for each active well to equivalent barrels of oil by dividing the standard cubic feet of natural gas produced by 6,000 standard cubic feet per barrel of oil equivalent.

(C) Convert the condensate production for each active well to equivalent barrels of oil by multiplying the barrels of condensate by 0.9 barrels of oil equivalent per barrel of condensate.

(ii) Calculate the total production for each active well, in barrels of oil equivalent, by adding the results of subparagraph (i)(A)—(C) for each active well.

(iii) Sum the results of subparagraph (ii) for all active wells at the well site and divide by 365 or 366 days for the previous 12 calendar months or the previous calendar year, as applicable.

(2) If the owner or operator does not know the production of an individual well at the well site, the owner or operator shall comply with subsection (c)(2).

(c) *Requirements for a conventional well site*.

(1) For a well site consisting of only oil wells, the owner or operator shall:

(i) Determine the GOR of the oil well site using generally accepted methods.

(ii) If the GOR of the oil well site is less than 300 standard cubic feet of gas per barrel of oil produced, maintain the records under § 129.140(g)(1) (relating to recordkeeping and reporting).

(iii) If the GOR of the oil well site is equal to or greater than 300 standard cubic feet of gas per barrel of oil produced, meet the requirements of paragraph (2) or paragraph (3) based on the results of subsection (b)(1).

(2) For a well site producing, on average, equal to or greater than 15 barrels of oil equivalent per day, with at least one well producing, on average, equal to or greater than 15 barrels of oil equivalent per day, the owner or operator shall:

(i) Conduct an initial AVO inspection on or before _____ (*Editor's Note*: The blank refers to the date 60 days after the effective date of this rulemaking.), with monthly inspections thereafter separated by at least 15 calendar days but not more than 45 calendar days.

(ii) Conduct an initial LDAR inspection program on or before _____ (*Editor's Note*: The blank refers to the date 60 days after the effective date of this rulemaking.), with quarterly inspections thereafter separated by at least 60 calendar days but not more than 120 calendar days using one or more of the following:

(A) OGI equipment.

(B) A gas leak detector that meets the requirements of EPA Method 21.

(C) Another leak detection method approved by the Department.

(3) For a well site producing, on average, equal to or greater than 15 barrels of oil equivalent per day, and at least one well producing, on average, equal to or greater than 5 barrels of oil equivalent per day but less than 15 barrels of oil equivalent per day, the owner or operator shall:

(i) Conduct an initial AVO inspection on or before _____ (*Editor's Note:* The blank refers to the date 60 days after the effective date of this rulemaking.), with monthly inspections thereafter separated by at least 15 calendar days but not more than 45 calendar days.

(ii) Conduct an initial LDAR inspection program on or before _____ (*Editor's Note:* The blank refers to the date 150 days after the effective date of this rulemaking.), with annual inspections thereafter separated by at least 335 calendar days but not more than 395 calendar days using one or more of the following:

(A) OGI equipment.

(B) A gas leak detector that meets the requirements of EPA Method 21.

(C) Another leak detection method approved by the Department.

(4) The owner or operator of a producing well site shall calculate the average production of the well site under subsection (b) for the previous calendar year not later than February 15 and may adjust the frequency of the required LDAR inspection as follows:

(i) If two consecutive calculations show reduced production, the owner or operator may adopt the requirements applicable to the reduced production level.

(ii) If a calculation shows higher production, the owner or operator shall adopt the requirements applicable to the higher production level immediately.

(5) The owner or operator of a well site subject to paragraph (3) may submit to the appropriate Department Regional Office a request, in writing, for an exemption from the requirements of paragraph (3)(ii).

(i) The written request must include the following:

(A) Name and location of the well site.

(B) A demonstration that the requirements of paragraph (3)(ii) are not technically or economically feasible for the well site.

(C) Sufficient methods for demonstrating compliance with all applicable standards or regulations promulgated under the Clean Air Act or the Act.

(D) Sufficient methods for demonstrating compliance with this section, §§ 129.131—129.136 and 129.138—129.140.

(ii) The Department will review the complete written request submitted in accordance with subparagraph (i) and approve or deny the request in writing.

(iii) The Department will submit each exemption determination approved under subparagraph (ii) to the Administrator of the EPA for approval as a revision to the SIP. The owner or operator shall bear the costs of public hearings and notifications, including newspaper notices, required for the SIP submittal.

(iv) The owner or operator of the well site identified in subparagraph (i)(A) shall remain subject to the requirements of paragraphs (1), (3)(i) and (4).

(d) *Requirements for a shut-in conventional well site*. The owner or operator of a conventional well site that is temporarily shut-in is not required to perform an LDAR inspection of the well site until one of the following occurs, whichever is first:

(1) Sixty days after the conventional well site is put into production.

(2) The date of the next required LDAR inspection after the conventional well site is put into production.

(e) *Requirements for a natural gas gathering and boosting station or a natural gas processing plant*. The owner or operator of a natural gas gathering and boosting station or a natural gas processing plant shall conduct the following:

(1) An initial AVO inspection on or before ______ (*Editor's Note*: The blank refers to the date 60 days after the effective date of this rulemaking.), with monthly inspections thereafter separated by at least 15 calendar days but not more than 45 calendar days.

(2) An initial LDAR inspection program on or before_____ (*Editor's Note*: The blank refers to the date 60 days after the effective date of this rulemaking.), with quarterly inspections thereafter separated by at least 60 calendar days but not more than 120 calendar days using one or more of the following:

(i) OGI equipment.

(ii) A gas leak detector that meets the requirements of EPA Method 21.

(iii) Another leak detection method approved by the Department.

(f) *Requirements for extension of the LDAR inspection interval*. The owner or operator of an affected facility may request, in writing, an extension of the LDAR inspection interval from the Air Program Manager of the appropriate Department Regional Office.

(g) *Fugitive emissions monitoring plan*. The owner or operator shall develop, in writing, an emissions monitoring plan that covers the collection of fugitive emissions components at the subject facility within each company-defined area. The written plan must include the following elements:

(1) The technique used for determining fugitive emissions.

(2) A list of fugitive emissions detection equipment, including the manufacturer and model number, that may be used at the facility.

(3) A list of personnel that may conduct the monitoring surveys at the facility, including their training and experience.

(4) The procedure and timeframe for identifying and fixing a fugitive emissions component from which fugitive emissions are detected, including for a component that is unsafe-to-repair.

(5) The procedure and timeframe for verifying fugitive emissions component repairs.

(6) The procedure and schedule for verifying the fugitive emissions detection equipment is operating properly.

(i) For OGI equipment, the verification must be completed as specified in subsection (h).

(ii) For gas leak detection equipment using EPA Method 21, the verification must be completed as specified in subsection (i).

(iii) For a Department-approved method, a copy of the request for approval that shows the method's equivalence to subsection (h) or subsection (i).

(7) A sitemap.

(8) If using OGI, a defined observation path that meets the following:

(i) Ensures that all fugitive emissions components are within sight of the path.

(ii) Accounts for interferences.

(9) If using EPA Method 21, a list of the fugitive emissions components to be monitored and an identification method to locate them in the field.

(10) A written plan for each fugitive emissions component designated as difficult-to-monitor or unsafe-to-monitor which includes the following:

(i) A method to identify a difficult-to-monitor or unsafe-to-monitor component in the field.

(ii) The reason each component was identified as difficult-to-monitor or unsafe-to-monitor.

(iii) The monitoring schedule for each component identified as difficult-to-monitor or unsafe-to-monitor. The monitoring schedule for difficult-to-monitor components must include at least one survey per year no more than 13 months apart.

(h) *Verification procedures for OGI equipment*. An owner or operator that identifies OGI equipment in the fugitive emissions monitoring plan in subsection (g)(6)(i) shall complete the verification by doing the following:

(1) Demonstrating that the OGI equipment is capable of imaging a gas:

(i) In the spectral range for the compound of highest concentration in the potential fugitive emissions.

(ii) That is half methane, half propane at a concentration of 10,000 ppm at a flow rate of less than or equal to 60 grams per hour (2.115 ounces per hour) from a 1/4-inch diameter orifice.

(2) Performing a verification check each day prior to use.

(3) Determining the equipment operator's maximum viewing distance from the fugitive emissions component and how the equipment operator will ensure that this distance is maintained.

(4) Determining the maximum wind speed during which monitoring can be performed and how the equipment operator will ensure monitoring occurs only at wind speeds below this threshold.

(5) Conducting the survey by using the following procedures:

(i) Ensuring an adequate thermal background is present to view potential fugitive emissions.

(ii) Dealing with adverse monitoring conditions, such as wind.

(iii) Dealing with interferences, such as steam.

(6) Following the manufacturer's recommended calibration and maintenance procedures.

(i) *Verification procedures for gas leak detection equipment using EPA Method 21*. An owner or operator that identifies gas leak detection equipment using EPA Method 21 in the fugitive emissions monitoring plan in subsection (g)(6)(ii) shall complete the verification by doing the following:

(1) Verifying that the gas leak detection equipment meets:

(i) The requirements of Section 6.0 of EPA Method 21 with a fugitive emissions definition of 500 ppm or greater calibrated as methane using an FID-based instrument.

(ii) A site-specific fugitive emission definition that would be equivalent to subparagraph (i) for other equipment approved for use in EPA Method 21 by the Department.

(2) Using the average composition of the fluid, not the individual organic compounds in the stream, when performing the instrument response factor of Section 8.1.1 of EPA Method 21.

(3) Calculating the average stream response factor on an inert-free basis for process streams that contain nitrogen, air or other inert gases that are not organic hazardous air pollutants or VOCs.

(4) Calibrating the gas leak detection instrument in accordance with Section 10.1 of EPA Method 21 on each day of its use using zero air, defined as a calibration gas with less than 10 ppm by volume of hydrocarbon in air, and a mixture of methane in air at a concentration less than 10,000 ppm by volume as the calibration gases.

(5) Conducting the surveys, which at a minimum, must comply with the relevant sections of EPA Method 21, including Section 8.3.1.

(j) *Fugitive emissions detection devices*. Fugitive emissions detection devices must be operated and maintained in accordance with manufacturer-recommended procedures and as required by the test method or a Department-approved method.

(k) *Background adjustment*. For LDAR inspections using a gas leak detector in accordance with EPA Method 21, the owner or operator may choose to adjust the gas leak detection instrument readings to account for the background organic concentration level as determined by the procedures of Section 8.3.2 of EPA Method 21.

(l) *Repair and resurvey provisions*. The owner or operator shall repair a leak detected from a fugitive emissions component as follows:

(1) A first attempt at repair must be made within 5 calendar days of detection, and repair must be completed no later than 15 calendar days after the leak is detected unless:

(i) The purchase of a part is required. The repair must be completed no later than 10 calendar days after the receipt of the purchased part.

(ii) The repair is technically infeasible because of one of the following reasons:

(A) It requires vent blowdown.

(B) It requires facility shutdown.

(C) It requires a well shut-in.

(D) It is unsafe to repair during operation of the unit.

(iii) A repair that is technically infeasible under subparagraph (ii) must be completed at the earliest of the following:

(A) After a planned vent blowdown.

(B) The next facility shutdown.

(C) Within 2 years.

(2) The owner or operator shall resurvey the fugitive emissions component no later than 30 calendar days after the leak is repaired.

(3) For a repair that cannot be made during the monitoring survey when the leak is initially found, the owner or operator shall do one of the following:

(i) Take a digital photograph of the fugitive emissions component which includes:

(A) The date the photo was taken.

(B) Clear identification of the component by location, such as by latitude and longitude or other descriptive landmarks visible in the picture.

(ii) Tag the component for identification purposes.

(4) A gas leak is considered repaired if:

(i) There is no visible leak image when using OGI equipment calibrated according to subsection (h).

(ii) A leak concentration of less than 500 ppm as methane is detected when the gas leak detector probe inlet is placed at the surface of the fugitive emissions component for a gas leak detector calibrated according to subsection (i).

(iii) There are no detectable emissions consistent with Section 8.3.2 of EPA Method 21**.**

(iv) There is no bubbling at the leak interface using the soap solution bubble test specified in Section 8.3.3 of EPA Method 21.

(m) *Recordkeeping and reporting requirements*. The owner or operator of a fugitive emissions component subject to this section shall maintain the records under § 129.140(g) and submit the reports under § 129.140(k)(3)(vi).

§ 129.138. Covers and closed vent systems.

(a) *Requirements for a cover on a storage vessel, reciprocating compressor or centrifugal compressor*. The owner or operator shall perform the following for a cover of a source subject to § 129.133(b)(1)(i) or § 129.136(b)(2) or (c)(2) (relating to storage vessels; and compressors), as applicable:

(1) Ensure that the cover and all openings on the cover form a continuous impermeable barrier over each subject source as follows:

(i) The entire surface area of the liquid in the storage vessel.

(ii) The entire surface area of the liquid in the wet seal fluid degassing system of a centrifugal compressor.

(iii) The rod packing emissions collection system of a reciprocating compressor.

(2) Ensure that each cover opening is covered by a gasketed lid or cap that is secured in a closed, sealed position except when it is necessary to use an opening for one or more of the following:

(i) To inspect, maintain, repair or replace equipment.

(ii) To route a liquid, gas, vapor or fume from the source to a control device or a process that meets the applicable requirements of § 129.139 (relating to control devices) through a closed vent system designed and operated in accordance with subsection (b).

(iii) To inspect or sample the material in a storage vessel.

(iv) To add material to or remove material from a storage vessel, including openings necessary to equalize or balance the internal pressure of the storage vessel following changes in the level of the material in the storage vessel.

(3) Ensure that each storage vessel thief hatch is equipped, maintained and operated with the following:

(i) A mechanism to ensure that the lid remains properly seated and sealed under normal operating conditions, including when working, standing or breathing, or when flash emissions may be generated.

(ii) A gasket made of a suitable material based on the composition of the fluid in the storage vessel and weather conditions.

(4) Conduct an initial AVO inspection on or before _____ (*Editor's Note*: The blank refers to the date 60 days after the effective date of this rulemaking.), with monthly inspections thereafter separated by at least 15 calendar days but not more than 45 calendar days for defects that could result in air emissions. Defects include the following:

(i) A visible crack, hole or gap in the cover.

(ii) A visible crack, hole or gap between the cover and the separator wall.

(iii) A broken, cracked or otherwise damaged seal or gasket on a closure device.

(iv) A broken or missing hatch, access cover, cap or other closure device.

(5) Inspect only those portions of the cover that extend to or above the surface and the connections on those portions of the cover, including fill ports, access hatches and gauge wells that can be opened to the atmosphere for a storage vessel that is partially buried or entirely underground.

(6) Repair a detected leak or defect as specified in § 129.137(l) (relating to fugitive emissions components).

(7) Maintain the records under § 129.140(h) (relating to recordkeeping and reporting) and submit the report under § 129.140(k)(3)(vii).

(b) *Requirements for a closed vent system*. The owner or operator shall perform the following for each closed vent system installed on a source subject to § 129.133(b)(1)(ii), § 129.135(b)(1)(i) or (c)(1)(ii) (relating to natural gas-driven diaphragm pumps) or § 129.136(b)(2) or (c)(2):

(1) Design the closed vent system to route the liquid, gas, vapor or fume emitted from the source to a control device or process that meets the applicable requirements in § 129.139.

(2) Operate the closed vent system with no detectable emissions as determined by the following:

(i) Conduct an initial AVO inspection on or before _____ (*Editor's Note*: The blank refers to the date 60 days after the effective date of this rulemaking.), with monthly inspections thereafter separated by at least 15 calendar days but not more than 45 calendar days for defects that could result in air emissions. Defects include the following:

(A) A visible crack, hole or gap in piping.

(B) A loose connection.

(C) A liquid leak.

(D) A broken or missing cap or other closure device.

(ii) Conducting a no detectable emissions inspection as specified in subsection (d) during the facility's scheduled LDAR inspection in accordance with § 129.137(c)(2)(ii), (c)(3)(ii) or (e)(2).

(3) Repair a detected leak or defect as specified in § 129.137(l).

(4) Except as specified in subparagraph (iii), if the closed vent system contains one or more bypass devices that could be used to divert the liquid, gas, vapor or fume from routing to the control device or to the process under paragraph (1), perform one or more of the following:

(i) Install, calibrate, operate and maintain a flow indicator at the inlet to the bypass device so when the bypass device is open it does one of the following:

(A) Sounds an alarm.

(B) Initiates a notification by means of a remote alarm to the nearest field office.

(ii) Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using the following procedure:

(A) Installing either of the following:

(I) A car-seal.

(II) A lock-and-key configuration.

(B) Visually inspecting the mechanism in clause (A) to verify that the valve is maintained in the non-diverting position on or before _____ (*Editor's Note*: The blank refers to the date 60 days after the effective date of this rulemaking.), with monthly inspections separated by at least 15 calendar days but not more than 45 calendar days.

(C) Maintaining the records under § 129.140(i)(4).

(iii) Subparagraphs (i) and (ii) do not apply to a low leg drain, high point bleed, analyzer vent, open-ended valve or line, or safety device.

(5) Conduct an assessment that meets the requirements of subsection (c).

(6) Maintain the records under § 129.140(i) and submit the reports under § 129.140(k)(3)(viii).

(c) *Requirements for closed vent system design and capacity assessment*. An owner or operator that installs a closed vent system under subsection (b) shall perform a design and capacity assessment which must include the following:

(1) Be prepared under the supervision of an in-house engineer or qualified professional engineer.

(2) Verify the following:

(i) That the closed vent system is of sufficient design and capacity to ensure that the emissions from the emission source are routed to the control device or process.

(ii) That the control device or process is of sufficient design and capacity to accommodate the emissions from the emission source.

(3) Be certified, signed, and dated by the engineer supervising the assessment, including the statement: "I certify that the closed vent design and capacity assessment was prepared under my supervision. I further certify that the assessment was conducted, and this report was prepared under the requirements of 25 Pa. Code § 129.138(c). Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information."

(d) *No detectable emissions procedures*. The owner or operator shall conduct the no detectable emissions inspection required under subsection (b)(2)(ii) by performing one of the following:

(1) Use OGI equipment that meets § 129.137(h).

(2) Use a gas leak detection instrument that meets § 129.137(i). The owner or operator may adjust the gas leak detection instrument readings as specified in § 129.137(k).

(3) Use another leak detection method approved by the Department.

(4) Determine if a potential leak interface operates with no detectable emissions, if the gas leak detection instrument reading is not a leak as defined in § 129.132(a) (relating to definitions, acronyms and EPA methods).

§ 129.139. Control devices.

(a) *Applicability*. This section applies to the owner or operator of each control device that receives a liquid, gas, vapor or fume from a source subject to § 129.133(b)(1)(iii), § 129.135(b)(1)(ii) or (c)(1), or § 129.136(b)(2) or (c)(2) (relating to storage vessels; natural gas-driven diaphragm pumps; and compressors).

(1) The owner or operator shall perform the following:

(i) Operate each control device whenever a liquid, gas, vapor or fume is routed to the control device.

(ii) Maintain the records under § 129.140(j) (relating to recordkeeping and reporting) and submit the reports under § 129.140(k)(3)(ix).

(2) The owner or operator may route the liquid, gas, vapor or fume from more than one source subject to § 129.133(b)(1)(iii), § 129.135(b)(1)(ii) or (c)(1), or § 129.136(b)(2) or (c)(2) to a control device installed and operated under this section.

(b) *General requirements for a control device*. The owner or operator of a control device subject to this section shall install and operate one or more control devices listed in subsections (c)—(i). The owner or operator shall meet the following requirements, as applicable:

(1) Operate the control device following the manufacturer's written operating instructions, procedures and maintenance schedule to ensure good air pollution control practices for minimizing VOC emissions.

(2) Ensure that the control device is maintained in a leak-free condition by conducting a physical integrity check according to the manufacturer's instructions, with monthly inspections separated by at least 15 calendar days but not more than 45 calendar days.

(3) Maintain a pilot flame while operating the control device and monitor the pilot flame by installing a heat sensing CPMS as specified under subsection (m)(3). If the heat sensing CPMS indicates the absence of the pilot flame or if the control device is smoking or shows other signs of improper equipment operation, ensure the control device is returned to proper operation by performing the following procedures:

(i) Checking the air vent for obstruction and clearing an observed obstruction.

(ii) Checking for liquid reaching the combustor.

(4) Operate the control device with no visible emissions, except for periods not to exceed a total of 1 minute during a 15-minute period as determined by conducting a visible emissions test according to Section 11 of EPA Method 22.

(i) Each monthly visible emissions test shall be separated by at least 15 calendar days but not more than 45 calendar days.

(ii) The observation period for the test in subparagraph (i) shall be 15 minutes.

(5) Repair the control device if it fails the visible emissions test of paragraph (4) as specified in subparagraph (i) or subparagraph (ii) and return the control device to compliant operation.

(i) The manufacturer's repair instructions, if available.

(ii) The best combustion engineering practice applicable to the control device if the manufacturer’s repair instructions are not available.

(6) Ensure the control device passes the EPA Method 22 visual emissions test described in paragraph (4) following return to operation from a maintenance or repair activity.

(7) Record the inspection, repair and maintenance activities for the control device in a maintenance and repair log.

(c) *Compliance requirements for a manufacturer-tested combustion device*. The owner or operator of a control device subject to this section that installs a control device tested under 40 CFR 60.5413a(d) (relating to what are the performance testing procedures for control devices used to demonstrate compliance at my centrifugal compressor and storage vessel affected facilities?) shall meet subsection (b)(1)—(7) and the following:

(1) Maintain the inlet gas flow rate at less than or equal to the maximum flow rate specified by the manufacturer. This is confirmed by one of the following:

(i) Installing, operating and maintaining a flow CPMS that meets subsection (m)(1) and (2)(i) to measure gas flow rate at the inlet to the control device.

(ii) Conducting a periodic performance test under subsection (k) instead of installing a flow CPMS to demonstrate that the mass content of VOC in the gases vented to the device is reduced by 95.0% by weight or greater.

(2) Submit an electronic copy of the performance test results to the EPA as required by 40 CFR 60.5413a(d) in accordance with 40 CFR 60.5413a(e)(6).

(d) *Compliance requirements for an enclosed combustion device*. The owner or operator of a control device subject to this section that installs an enclosed combustion device, such as a thermal vapor incinerator, catalytic vapor incinerator, boiler or process heater, shall meet subsection (b)(1)—(7) and the following:

(1) Ensure the enclosed combustion control device is designed and operated to meet one of the following performance requirements:

(i) To reduce the mass content of VOC in the gases vented to the device by 95.0% by weight or greater, as determined under subsection (k).

(ii) To reduce the concentration of TOC in the exhaust gases at the outlet to the device to a level less than or equal to 275 ppmvd as propane corrected to 3% oxygen as determined under subsection (l).

(iii) To operate at a minimum temperature of 760 °Celsius (1,400 °Fahrenheit), if it is demonstrated during the performance test conducted under subsection (k) that combustion zone temperature is an indicator of destruction efficiency.

(iv) To introduce the vent stream into the flame zone of the boiler or process heater if a boiler or process heater is used as the control device.

(2) Install, calibrate, operate and maintain a CPMS according to the manufacturer's specifications and subsection (m) to measure the values of the operating parameters appropriate to the control device as follows:

(i) For a thermal vapor incinerator that demonstrates under subsection (m)(6)(i) that combustion zone temperature is an accurate indicator of performance, a temperature CPMS that meets subsection (m)(1) and (4) with the temperature sensor installed at a location representative of the combustion zone temperature.

(ii) For a catalytic vapor incinerator, a temperature CPMS capable of monitoring temperature at two locations and that meets subsection (m)(1) and (4) with one temperature sensor installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(iii) For a boiler or process heater that demonstrates under subsection (m)(6)(i) that combustion zone temperature is an accurate indicator of performance, a temperature CPMS that meets subsection (m)(1) and (4) with the temperature sensor installed at a location representative of the combustion zone temperature. The monitoring requirements do not apply if the boiler or process heater meets either of the following:

(A) Has a design heat input capacity of 44 megawatts (150 MMBtu per hour) or greater.

(B) Introduces the vent stream with the primary fuel or uses the vent stream as the primary fuel.

(iv) For a control device complying with paragraph (1)(ii), an organic concentration CPMS that meets subsection (m)(1) and (5) that measures the concentration level of organic compounds in the exhaust vent stream from the control device.

(3) Operate the control device in compliance with the operating parameter value established under subsection (m)(6).

(4) Calculate the daily average of the monitored operating parameter for each operating day, using the valid data recorded by the monitoring system under subsection (m)(7).

(5) Ensure that the daily average of the monitoring parameter value calculated under paragraph (4) complies with the parameter value established under paragraph (3) as specified in subsection (m)(9).

(6) Operate the CPMS installed under paragraph (2) whenever the source is operating, except during the times specified in subsection (m)(8)(iii).

(e) *Compliance requirements for a flare*. The owner or operator of a control device subject to this section that installs a flare designed and operated in accordance with 40 CFR 60.18(b) (relating to general control device and work practice requirements) shall meet subsection (b)(3)—(7).

(f) *Compliance requirements for a carbon adsorption system*. The owner or operator of a control device subject to this section that installs a carbon adsorption system shall meet subsection (b)(1) and (2) and the following:

(1) Design and operate the carbon adsorption system to reduce the mass content of VOC in the gases vented to the device as demonstrated by one of the following:

(i) Determining the VOC emission reduction is 95.0% by weight or greater as specified in subsection (k).

(ii) Reducing the concentration of TOC in the exhaust gases at the outlet to the device to a level less than or equal to 275 ppmvd as propane corrected to 3% oxygen as determined under subsection (l).

(iii) Conducting a design analysis in accordance with subsection (g)(6) or subsection (h)(2) as applicable.

(2) Include a carbon replacement schedule in the design of the carbon adsorption system.

(3) Replace the carbon in the control device with fresh carbon on a regular schedule that is no longer than the carbon service life established according to the design analysis in subsection (g)(6) or subsection (h)(2) or according to the replacement schedule in paragraph (2).

(4) Manage the spent carbon removed from the carbon adsorption system in paragraph (3) by one of the following:

(i) Regenerating or reactivating the spent carbon in one of the following:

(A) A thermal treatment unit for which the owner or operator has been issued a permit under 40 CFR Part 270 (relating to EPA administered permit programs: the hazardous waste permit program) that implements the requirements of 40 CFR Part 264, Subpart X (relating to miscellaneous units).

(B) A unit equipped with operating organic air emission controls in accordance with an emissions standard for VOC under a subpart in 40 CFR Part 60 (relating to standards of performance for new stationary sources) or 40 CFR Part 63 (relating to national emission standards for hazardous air pollutants for source categories).

(ii) Burning the spent carbon in one of the following:

(A) A hazardous waste incinerator, boiler or industrial furnace for which the owner or operator complies with the requirements of 40 CFR Part 63, Subpart EEE (relating to national emission standards for hazardous air pollutants from hazardous waste combustors) and has submitted a Notification of Compliance under 40 CFR 63.1207(j) (relating to what are the performance testing requirements?).

(B) An industrial furnace for which the owner or operator has been issued a permit under 40 CFR Part 270 that implements the requirements of 40 CFR Part 266, Subpart H (relating to hazardous waste burned in boilers and industrial furnaces).

(C) An industrial furnace designed and operated in accordance with the interim status requirements of 40 CFR Part 266, Subpart H.

(g) *Additional compliance requirements for a regenerative carbon adsorption system*. The owner or operator of a control device subject to this section that installs a regenerative carbon adsorption system shall meet subsection (f) and the following:

(1) Install, calibrate, operate and maintain a CPMS according to the manufacturer's specifications and the applicable requirements of subsection (m) to measure the values of the operating parameters appropriate to the control device as follows:

(i) For a source complying with subsection (f)(1)(i), a flow CPMS system that meets the requirements of subsection (m)(1) and (2)(ii) to measure and record the average total regeneration steam mass flow or volumetric flow during each carbon bed regeneration cycle. The owner or operator shall inspect the following:

(A) The mechanical connections for leakage with monthly inspections separated by at least 15 calendar days but not more than 45 calendar days.

(B) The components of the flow CPMS for physical and operational integrity if the flow CPMS is not equipped with a redundant flow sensor with quarterly inspections separated by at least 60 calendar days but not more than 120 calendar days.

(C) The electrical connections of the flow CPMS for oxidation and galvanic corrosion if the flow CPMS is not equipped with a redundant flow sensor with quarterly inspections separated by at least 60 calendar days but not more than 120 calendar days.

(ii) For a source complying with subsection (f)(1)(i), a temperature CPMS that meets the requirements of subsection (m)(1) and (4) to measure and record the average carbon bed temperature for the duration of the carbon bed steaming cycle and measure the actual carbon bed temperature after regeneration and within 15 minutes of completing the cooling cycle.

(iii) For a source complying with subsection (f)(1)(ii), an organic concentration CPMS that meets subsection (m)(1) and (5) that measures the concentration level of organic compounds in the exhaust vent stream from the control device.

(2) Operate the control device in compliance with the operating parameter value established under subsection (m)(6).

(3) Calculate the daily average of the applicable monitored operating parameter for each operating day, using the valid data recorded by the CPMS as specified in subsection (m)(7).

(4) Ensure that the daily average of the monitoring parameter value calculated under paragraph (3) complies with the parameter value established under paragraph (2) as specified in subsection (m)(9).

(5) Operate the CPMS installed in paragraph (1) whenever the source is operating, except during the times specified in subsection (m)(8)(iii).

(6) Ensure that the design analysis to meet subsection (f)(1)(iii) and (2) for the regenerable carbon adsorption system meets the following:

(i) Includes an analysis of the vent stream, including the following information:

(A) Composition.

(B) Constituent concentrations.

(C) Flowrate.

(D) Relative humidity.

(E) Temperature.

(ii) Establishes the following parameters for the regenerable carbon adsorption system:

(A) Design exhaust vent stream organic compound concentration level.

(B) Adsorption cycle time.

(C) Number and capacity of carbon beds.

(D) Type and working capacity of activated carbon used for the carbon beds.

(E) Design total regeneration stream flow over the period of each complete carbon bed regeneration cycle.

(F) Design carbon bed temperature after regeneration.

(G) Design carbon bed regeneration time.

(H) Design service life of the carbon.

(h) *Additional compliance requirements for a non-regenerative carbon adsorption system*. The owner or operator of a control device subject to this section that installs a non-regenerative carbon adsorption system shall meet subsection (f) and the following:

(1) Monitor the design carbon replacement interval established in subsection (f)(2) or paragraph (2). The design carbon replacement interval must be based on the total carbon working capacity of the control device and the source operating schedule.

(2) Ensure that the design analysis to meet subsection (f)(1)(iii) and (2) for a non-regenerable carbon adsorption system, such as a carbon canister, meets the following:

(i) Includes an analysis of the vent stream including the following information:

(A) Composition.

(B) Constituent concentrations.

(C) Flowrate.

(D) Relative humidity.

(E) Temperature.

(ii) Establishes the following parameters for the non-regenerable carbon adsorption system:

(A) Design exhaust vent stream organic compound concentration level.

(B) Capacity of the carbon bed.

(C) Type and working capacity of activated carbon used for the carbon bed.

(D) Design carbon replacement interval based on the total carbon working capacity of the control device and the source operating schedule.

(iii) Incorporates dual carbon canisters in case of emission breakthrough occurring in one canister.

(i) *Compliance requirements for a condenser or non-destructive control device*. The owner or operator of a control device subject to this section that installs a condenser or other non-destructive control device shall meet subsection (b)(1) and (2) and the following:

(1) Design and operate the condenser or other non-destructive control device to reduce the mass content of VOC in the gases vented to the device as demonstrated by one of the following:

(i) Determining the VOC emissions reduction is 95.0% by weight or greater under subsection (k).

(ii) Reducing the concentration of TOC in the exhaust gases at the outlet to the device to a level less than or equal to 275 ppmvd as propane corrected to 3% oxygen as determined under subsection (l).

(iii) Conducting a design analysis in accordance with paragraph (7).

(2) Prepare a site-specific monitoring plan that addresses the following CPMS design, data collection, and quality assurance and quality control elements:

(i) The performance criteria and design specifications for the CPMS equipment, including the following:

(A) The location of the sampling interface that allows the CPMS to provide representative measurements. For a temperature CPMS that meets the requirements of subsection (m)(1) and (4) the sensor must be installed in the exhaust vent stream as detailed in the procedures of the site-specific monitoring plan.

(B) Equipment performance checks, system accuracy audits or other audit procedures.

(I) Performance evaluations of each CPMS shall be conducted in accordance with the site-specific monitoring plan.

(II) CPMS performance checks, system accuracy audits or other audit procedures specified in the site-specific monitoring plan shall be conducted at least once every 12 months.

(ii) Ongoing operation and maintenance procedures in accordance with 40 CFR 60.13(b) (relating to monitoring requirements).

(iii) Ongoing reporting and recordkeeping procedures in accordance with 40 CFR 60.7(c), (d) and (f) (relating to notification and record keeping).

(3) Install, calibrate, operate and maintain a CPMS according to the site-specific monitoring plan described in paragraph (2) and the applicable requirements of subsection (m) to measure the values of the operating parameters appropriate to the control device as follows:

(i) For a source complying with paragraph (1)(i), a temperature CPMS that meets subsection (m)(1) and (4) to measure and record the average condenser outlet temperature.

(ii) For a source complying with paragraph (1)(ii), an organic concentration CPMS that meets subsection (m)(1) and (5) that measures the concentration level of organic compounds in the exhaust vent stream from the control device.

(4) Operate the control device in compliance with the operating parameter value established under subsection (m)(6).

(5) Calculate the daily average of the applicable monitored operating parameter for each operating day, using the valid data recorded by the CPMS as follows:

(i) For a source complying with paragraph (1)(i), use the calculated daily average condenser outlet temperature as specified in subsection (m)(7) and the condenser performance curve established under subsection (m)(6)(iii) to determine the condenser efficiency for the current operating day. Calculate the 365-day rolling average TOC emission reduction, as appropriate, from the condenser efficiencies as follows:

(A) If there is less than 120 days of data for determining average TOC emission reduction, calculate the average TOC emission reduction for the first 120 days of operation. Compliance is demonstrated with paragraph (1)(i) if the 120-day average TOC emission reduction is equal to or greater than 95.0% by weight.

(B) After 120 days and no more than 364 days of operation, calculate the average TOC emission reduction as the TOC emission reduction averaged over the number of days of operation for which there is data. Compliance is demonstrated with paragraph (1)(i) if the average TOC emission reduction is equal to or greater than 95.0% by weight.

(C) If there is data for 365 days or more of operation, compliance is demonstrated with the TOC emission reduction if the rolling 365-day average TOC emission reduction calculated in subparagraph (i) is equal to or greater than 95.0% by weight.

(ii) For a source complying with paragraph (1)(ii), calculate the daily average concentration for each operating day, using the data recorded by the CPMS as specified in subsection (m)(7). Compliance is demonstrated with paragraph (1)(ii) if the daily average concentration is less than the operating parameter under paragraph (4) as specified in subsection (m)(9).

(6) Operate the CPMS installed in accordance with paragraph (3) whenever the source is operating, except during the times specified in subsection (m)(8)(iii).

(7) Ensure that the design analysis to meet paragraph (1)(iii) for a condenser or other non-destructive control device meets the following:

(i) Includes an analysis of the vent stream including the following information:

(A) Composition.

(B) Constituent concentrations.

(C) Flowrate.

(D) Relative humidity.

(E) Temperature.

(ii) Establishes the following parameters for the condenser or other non-destructive control device:

(A) Design outlet organic compound concentration level.

(B) Design average temperature of the condenser exhaust vent stream.

(C) Design average temperatures of the coolant fluid at the condenser inlet and outlet.

(j) *General performance test requirements*. The owner or operator shall meet the following performance test requirements:

(1) The owner or operator shall do the following, as applicable:

(i) Except as specified in subparagraph (iii), conduct an initial performance test within 180 days after installation of a control device.

(ii) Except as specified in subparagraph (iii), conduct a performance test of an existing conduct a performance test of an existing control device on or before _____ (*Editor's Note:* The blank refers to the date 240 days after the effective date of this rulemaking.), unless the owner or operator of the control device is complying with an established performance test interval, in which case the current schedule should be maintained.

(iii) The performance test in subparagraph (i) or subparagraph (ii) is not required if the owner or operator meets one or more of the following:

(A) Installs a manufacturer-tested combustion device that meets the requirements of subsection (c).

(B) Installs a flare that meets the requirements of subsection (e).

(C) Installs a boiler or process heater with a design heat input capacity of 44 megawatts (150 MMBtu per hour) or greater.

(D) Installs a boiler or process heater which introduces the vent stream with the primary fuel or uses the vent stream as the primary fuel.

(E) Installs a boiler or process heater which burns hazardous waste that meets one or more of the following:

(I) For which an operating permit was issued under 40 CFR Part 270 (relating to EPA administered permit programs: the hazardous waste permit program) and complies with the requirements of 40 CFR Part 266, Subpart H.

(II) For which compliance with the interim status requirements of 40 CFR Part 266, Subpart H has been certified.

(III) Which complies with 40 CFR Part 63, Subpart EEE and for which a Notification of Compliance under 40 CFR 63.1207(j) was submitted to the Department.

(IV) Which complies with 40 CFR Part 63, Subpart EEE and for which a Notification of Compliance under 40 CFR 63.1207(j) will be submitted to the Department within 90 days of the completion of the initial performance test report unless a written request for an extension is submitted to the Department.

(F) Installs a hazardous waste incinerator which meets the requirements of 40 CFR Part 63, Subpart EEE and for which the Notification of Compliance under 40 CFR 63.1207(j):

(I) Was submitted to the Department.

(II) Will be submitted to the Department within 90 days of the completion of the initial performance test report unless a written request for an extension is submitted to the Department.

(G) Requests the performance test be waived under 40 CFR 60.8(b) (relating to performance tests).

(2) Conduct a periodic performance test no more than 60 months after the most recent performance test unless the owner or operator:

(i) Monitors the inlet gas flow for a manufacturer-tested combustion device under subsection (c)(1)(i).

(ii) Installs a control device exempt from testing requirements under paragraph (1)(iii)(A)—(G).

(iii) Establishes a correlation between firebox or combustion chamber temperature and the VOC performance level for an enclosed combustion device under subsection (d)(2)(iii).

(3) Conduct a performance test when establishing a new operating limit.

(k) *Performance test method for demonstrating compliance with a control device weight-percent VOC emission reduction requirement*. Demonstrate compliance with the control device weight-percent VOC emission reduction requirements of subsections (c)(1)(ii), (d)(1)(i), (f)(1)(i) and (i)(1)(i) by meeting subsection (j) and the following:

(1) Conducting a minimum of three test runs of at least 1-hour duration.

(2) Using EPA Method 1 or EPA Method 1A, as appropriate, to select the sampling sites which must be located at the inlet of the first control device and at the outlet of the final control device. References to particulate mentioned in EPA Method 1 or EPA Method 1A do not apply to this paragraph.

(3) Using EPA Method 2, EPA Method 2A, EPA Method 2C or EPA Method 2D, as appropriate to determine the gas volumetric flowrate.

(4) Using EPA Method 25A to determine compliance with the control device percent VOC emission reduction performance requirement using the following procedure:

(i) Convert the EPA Method 25A results to a dry basis, using EPA Method 4.

(ii) Compute the mass rate of TOC using the following equations:

$$E_i = K_2 C_i M_p Q_i$$

$$E_o = K_2 C_o M_p Q_o$$

Where:

E_i = Mass rate of TOC at the inlet of the control device on a dry basis, in kilograms per hour (pounds per hour).

E_o = Mass rate of TOC at the outlet of the control device on a dry basis, in kilograms per hour (pounds per hour).

K_2 = Constant, 2.494×10^{-6} (ppm) (mole per standard cubic meter) (kilogram per gram) (minute per hour) where standard temperature (mole per standard cubic meter) is 20° Celsius

Or

K_2 = Constant, 1.554×10^{-7} (ppm) (lb-mole per standard cubic feet) (minute per hour), where standard temperature (lb-mole per standard cubic feet) is 68° Fahrenheit.

C_i = Concentration of TOC, as propane, of the gas stream as measured by EPA Method 25A at the inlet of the control device, ppmvd.

C_o = Concentration of TOC, as propane, of the gas stream as measured by EPA Method 25A at the outlet of the control device, ppmvd.

M_p = Molecular weight of propane, 44.1 gram per mole (pounds per lb-mole).

Q_i = Flowrate of gas stream at the inlet of the control device in dry standard cubic meter per minute (dry standard cubic feet per minute).

Q_o = Flowrate of gas stream at the outlet of the control device in dry standard cubic meter per minute (dry standard cubic feet per minute).

(iii) Calculate the percent reduction in TOC as follows:

$$R_{cd} = \frac{E_i - E_o}{E_i} * 100\%$$

Where:

R_{cd} = Control efficiency of control device, percent.

E_i = Mass rate of TOC at the inlet to the control device as calculated in subparagraph (ii), kilograms per hour (pounds per hour).

E_o = Mass rate of TOC at the outlet of the control device as calculated in subparagraph (ii), kilograms per hour (pounds per hour).

(iv) If the vent stream entering a boiler or process heater with a performance testing requirement is introduced with the combustion air or as a secondary fuel, the owner or operator shall:

(A) Calculate E_i in subparagraph (ii) by using the TOC concentration in all combusted vent streams, primary fuels and secondary fuels as C_i.

(B) Calculate E_o in subparagraph (ii) by using the TOC concentration exiting the device as C_o.

(C) Determine the weight-percent reduction of TOC across the device in accordance with subparagraph (iii).

(5) The weight-percent reduction of TOC across the control device represents the VOC weight-percent reduction for demonstration of compliance with subsections (c)(1)(ii), (d)(1)(i), (f)(1)(i) and (i)(1)(i).

(l) *Performance test method for demonstrating compliance with an outlet concentration requirement*. Demonstrate compliance with the TOC concentration requirement of subsections (d)(1)(ii), (f)(1)(ii) and (i)(1)(ii) by meeting subsection (j) and the following:

(1) Conducting a minimum of three test runs of at least 1-hour duration.

(2) Using EPA Method 1 or EPA Method 1A, as appropriate, to select the sampling sites which must be located at the outlet of the control device. References to particulate mentioned in EPA Method 1 or EPA Method 1A do not apply to this paragraph.

(3) Using EPA Method 2, EPA Method 2A, EPA Method 2C, or EPA Method 2D, as appropriate to determine the gas volumetric flowrate.

(4) Using EPA Method 25A to determine compliance with the TOC concentration requirement using the following procedures:

(i) Measure the TOC concentration, as propane.

(ii) For a control device subject to subsection (f) or subsection (i), the results of EPA Method 25A in subparagraph (i) may be adjusted by subtracting the concentration of methane and ethane measured using EPA Method 18 taking either:

(A) An integrated sample.

(B) A minimum of four grab samples per hour using the following procedures:

(I) Taking the samples at approximately equal intervals in time, such as 15-minute intervals during the run.

(II) Taking the samples during the same time as the EPA Method 25A sample.

(III) Determining the average methane and ethane concentration per run.

(iii) The TOC concentration must be adjusted to a dry basis, using EPA Method 4.

(iv) The TOC concentration must be corrected to 3% oxygen as follows:

(A) The oxygen concentration must be determined using the emission rate correction factor for excess air, integrated sampling and analysis procedures from one of the following methods:

(I) EPA Method 3A.

(II) EPA Method 3B.

(III) ASTM D6522-00.

(IV) ANSI/ASME PTC 19.10-1981, Part 10.

(B) The samples for clause (A) must be taken during the same time that the samples are taken for determining the TOC concentration.

(C) The TOC concentration for percent oxygen must be corrected as follows:

$$C_c = C_m \left(\frac{17.9}{20.9 - \%O_{2m}} \right)$$

Where:

C_c = TOC concentration, as propane, corrected to 3% oxygen, ppmvd.

C_m = TOC concentration, as propane, ppmvd.

$\%O_{2m}$ = Concentration of oxygen, percent by volume as measured, dry.

(m) *Continuous parameter monitoring system requirements*. The owner or operator of a source subject to § 129.131(a) (relating to general provisions and applicability) and controlled by a device listed in subsections (c)—(i) that is required to install a CPMS shall:

(1) Ensure the CPMS measures the applicable parameter at least once every hour and continuously records either:

(i) The measured operating parameter value.

(ii) The block average operating parameter value for each 1-hour period calculated using the following procedures:

(A) The block average from all measured data values during each period.

(B) If values are measured more frequently than once per minute, a single value for each minute may be used instead of all measured values.

(2) Ensure the flow CPMS has either:

(i) An accuracy of ±2% or better at the maximum expected flow rate.

(ii) A measurement sensitivity of 5% of the flow rate or 10 standard cubic feet per minute, whichever is greater.

(3) Ensure the heat-sensing CPMS indicates the presence of the pilot flame while emissions are routed to the control device. Heat-sensing CPMS are exempt from the calibration, quality assurance and quality control requirements in this section.

(4) Ensure the temperature CPMS has a minimum accuracy of ±1% of the temperature being monitored in °Celsius (±1.8% in °Fahrenheit) or ±2.5 °Celsius (±4.5 °Fahrenheit), whichever value is greater.

(5) Ensure the organic concentration CPMS meets the requirements of Performance Specification 8 or 9 of 40 CFR Part 60, Appendix B (relating to performance specifications).

(6) Establish the operating parameter value to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirement as follows:

(i) For a parameter value established while conducting a performance test under subsection (k) or subsection (l):

(A) Base each minimum operating parameter value on the value established while conducting the performance test and supplemented, as necessary, by the design analysis of subsection (g)(6), subsection (h)(2) or subsection (i)(7), the manufacturer's recommendations, or both.

(B) Base each maximum operating parameter value on the value established while conducting the performance test and supplemented, as necessary, by the design analysis of subsection (g)(6), subsection (h)(2) or subsection (i)(7), the manufacturer's recommendations, or both.

(ii) Except as specified in clause (C), for a parameter value established using a design analysis in subsection (g)(6), subsection (h)(2) or subsection (i)(7):

(A) Base each minimum operating parameter value on the value established in the design analysis and supplemented, as necessary, by the manufacturer's recommendations.

(B) Base each maximum operating parameter value on the value established in the design analysis and supplemented, as necessary, by the manufacturer's recommendations.

(C) If the owner or operator and the Department do not agree on a demonstration of control device performance using a design analysis as specified in clause (A) or (B), then the owner or operator shall perform a performance test under subsection (k) or subsection (l) to resolve the disagreement. The Department may choose to have an authorized representative observe the performance test.

(iii) For a condenser, establish a condenser performance curve showing the relationship between condenser outlet temperature and condenser control efficiency that demonstrates the condenser complies with the applicable performance requirements in subsection (i)(1) as follows:

(A) Based on the value measured while conducting a performance test under subsection (k) or subsection (l) and supplemented, as necessary, by a condenser design analysis performed under subsection (i)(7), the manufacturer's recommendations, or both.

(B) Based on the value from a condenser design analysis performed under subsection (i)(7) supplemented, as necessary, by the manufacturer's recommendations.

(7) Except for the CPMS in paragraphs (2) and (3), calculate the daily average for each monitored parameter for each operating day using the data recorded by the CPMS. Valid data points must be available for 75% of the operating hours in an operating day to compute the daily average where the operating day is:

(i) A 24-hour period if the control device operation is continuous.

(ii) The total number of hours of control device operation per 24-hour period.

(8) Except as specified in subparagraph (iii), do both of the following:

(i) Ensure the data recorded by the CPMS is used to assess the operation of the control device and associated control system.

(ii) Report the failure to collect the required data in paragraph (1) as a deviation of the monitoring requirements.

(iii) The requirements of subparagraphs (i) and (ii) do not apply during:

(A) A monitoring system malfunction.

(B) A repair associated with a monitoring system malfunction.

(C) A required monitoring system quality assurance or quality control activity.

(9) Determine compliance with the established parameter value by comparing the calculated daily average to the established operating parameter value as follows:

(i) For a minimum operating parameter established in paragraph (6)(i)(A) or paragraph (6)(ii)(A), the control device is in compliance if the calculated value is equal to or greater than the established value.

(ii) For a maximum operating parameter established in paragraph (6)(i)(B) or paragraph (6)(ii)(B), the control device is in compliance if the calculated value is less than or equal to the established value.

§ 129.140. Recordkeeping and reporting.

(a) *Recordkeeping*. The owner or operator of a source subject to §§ 129.131—129.139 shall maintain the applicable records onsite or at the nearest local field office for 5 years. The records shall be made available to the Department upon request.

(b) *Storage vessels*. The records for each storage vessel must include the following, as applicable:

(1) The identification and location of each storage vessel subject to § 129.133 (relating to storage vessels). The location of the storage vessel shall be in latitude and longitude coordinates in decimal degrees to an accuracy and precision of 5 decimals of a degree using the North American Datum of 1983.

(2) Each deviation when the storage vessel was not operated in compliance with the requirements specified in § 129.133.

(3) The identity of each storage vessel removed from service under § 129.133(e) and the date on which it was removed from service.

(4) The identity of each storage vessel returned to service under § 129.133(f) and the date on which it was returned to service.

(5) The identity of each storage vessel and the VOC potential to emit calculation under § 129.133(a)(2).

(6) The identity of each storage vessel and the actual VOC emission calculation under § 129.133(c)(2)(i) including the following information:

(i) The date of each monthly calculation performed under § 129.133(c)(2)(i).

(ii) The calculation determining the actual VOC emissions each month.

(iii) The calculation demonstrating that the actual VOC emissions are less than 2.7 TPY determined as a 12-month rolling sum.

(7) The records documenting the time the skid-mounted or mobile storage vessel under § 129.133(d)(1) is located on site. If a skid-mounted or mobile storage vessel is removed from a site and either returned or replaced within 30 calendar days to serve the same or similar function, count the entire period since the original storage vessel was removed towards the number of consecutive days.

(8) The identity of each storage vessel required to reduce VOC emissions under § 129.133(b)(1) and the demonstration under § 129.133(b)(1)(iv).

(c) *Natural gas-driven continuous bleed pneumatic controllers*. The records for each natural gas-driven continuous bleed pneumatic controller must include the following, as applicable:

(1) The required compliance date, identification, location and manufacturer specifications for each natural gas-driven continuous bleed pneumatic controller subject to § 129.134(c) (relating to natural gas-driven continuous bleed pneumatic controllers).

(2) Each deviation when the natural gas-driven continuous bleed pneumatic controller was not operated in compliance with the requirements specified in § 129.134(c).

(3) If the natural gas-driven continuous bleed pneumatic controller is located at a natural gas processing plant, the documentation that the natural gas bleed rate is zero.

(4) For a natural gas-driven continuous bleed pneumatic controller under § 129.134(b), the determination based on a functional requirement for why a natural gas bleed rate greater than the applicable standard is required. A functional requirement includes one or more of the following:

(i) Response time.

(ii) Safety.

(iii) Positive actuation.

(d) *Natural gas-driven diaphragm pumps*. The records for each natural gas-driven diaphragm pump must include the following, as applicable:

(1) The required compliance date, location and manufacturer specifications for each natural gas-driven diaphragm pump subject to § 129.135 (relating to natural gas-driven diaphragm pumps).

(2) Each deviation when the natural gas-driven diaphragm pump was not operated in compliance with the requirements specified in § 129.135.

(3) For a natural gas-driven diaphragm pump under § 129.135(d), the records of the days of operation each calendar year. Any period of operation during a calendar day counts toward the 90-calendar-day threshold.

(4) For a natural gas-driven diaphragm pump under § 129.135(c)(1), maintain the following records:

(i) The records under subsection (j) for the control device type.

(ii) One of the following:

(A) The results of a performance test under § 129.139(k) or (l) (relating to control devices).

(B) A design evaluation indicating the percentage of VOC emissions reduction the control device is designed to achieve.

(C) The manufacturer's specifications indicating the percentage of VOC emissions reduction the control device is designed to achieve.

(5) For a well site with no available control device or process under § 129.135(c)(2), maintain a copy of the certification submitted under subsection (k)(3)(iii)(B)(II).

(6) The engineering assessment substantiating a claim under § 129.135(c)(3), including the certification under § 129.135(c)(3)(ii)(C).

(7) For a natural gas-driven diaphragm pump required to reduce VOC emissions under § 129.135(b)(1), the demonstration under § 129.135(b)(1)(iii).

(e) *Reciprocating compressors*. The records for each reciprocating compressor must include the following, as applicable:

(1) For a reciprocating compressor under § 129.136(b)(1)(i) (relating to compressors), the following records:

(i) The cumulative number of hours of operation.

(ii) The date and time of each rod packing replacement.

(2) For a reciprocating compressor under § 129.136(b)(1)(ii), the following records:

(i) The number of months since the previous replacement of the rod packing.

(ii) The date of each rod packing replacement.

(3) For a reciprocating compressor under § 129.136(b)(2), the following records:

(i) A statement that emissions from the rod packing are being routed to a control device or a process through a closed vent system under negative pressure.

(ii) The date of installation of a rod packing emissions collection system and closed vent system as specified in § 129.136(b)(2).

(4) Each deviation when the reciprocating compressor was not operated in compliance with § 129.136(b).

(f) *Centrifugal compressors*. The records for each centrifugal compressor must include the following, as applicable:

(1) An identification of each existing centrifugal compressor using a wet seal system subject to § 129.136(c).

(2) Each deviation when the centrifugal compressor was not operated in compliance with § 129.136(c).

(3) For a centrifugal compressor required to reduce VOC emissions under § 129.136(c)(1), the demonstration under § 129.136(c)(3).

(g) *Fugitive emissions components*. The records for each fugitive emissions component must include the following, as applicable:

(1) For an oil well site subject to § 129.137(c)(1)(ii) (relating to fugitive emissions components):

(i) The location of each well and its United States Well ID Number.

(ii) The analysis documenting a GOR of less than 300 standard cubic feet of gas per barrel of oil produced, conducted using generally accepted methods. The analysis must be signed by and include a certification by the responsible official stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

(2) For each well site, the average production calculations required under § 129.137(b)(1) and § 129.137(c)(4).

(3) For a well site subject to § 129.137(c)(2) or (c)(3), a natural gas gathering and boosting station or a natural gas processing plant:

(i) The fugitive emissions monitoring plan under § 129.137(g).

(ii) The records of each monitoring survey conducted under § 129.137(c)(2)(ii), (c)(3)(ii) or (e)(2). The monitoring survey must include the following information:

(A) The facility name and location.

(B) The date, start time and end time of the survey.

(C) The name of the equipment operator performing the survey.

(D) The monitoring instrument used.

(E) The ambient temperature, sky conditions and maximum wind speed at the time of the survey.

(F) Each deviation from the monitoring plan or a statement that there were none.

(G) Documentation of each fugitive emission including:

(I) The identification of each component from which fugitive emissions were detected.

(II) The instrument reading of each fugitive emissions component that meets the definition of a leak under § 129.132(a) (relating to definitions, acronyms and EPA methods).

(III) The repair methods applied in each attempt to repair the component.

(IV) The tagging or digital photographing of each component not repaired during the monitoring survey in which the fugitive emissions were discovered.

(V) The reason a component was placed on delay of repair.

(VI) The date of successful repair of the component.

(VII) If repair of the component was not completed during the monitoring survey in which the fugitive emissions were discovered, the information on the instrumentation or the method used to resurvey the component after repair.

(h) *Covers*. The records for each cover include the results of each cover inspection under § 129.138(a) (relating to covers and closed vent systems).

(i) *Closed vent systems*. The records for each closed vent system must include the following, as applicable:

(1) The results of each closed vent system inspection under § 129.138(b)(2).

(2) For the no detectable emissions inspections of § 129.138(d), a record of the monitoring survey as specified under subsection (g)(3)(ii).

(3) The engineering assessment under § 129.138(c), including the certification under § 129.138(c)(3).

(4) If the closed vent system includes a bypass device subject to § 129.138(b)(4), a record of:

(i) Each time the alarm is activated.

(ii) Each time the key is checked out, as applicable.

(iii) Each inspection required under § 129.138(b)(4)(ii)(B).

(j) *Control devices*. The records for each control device must include the following, as applicable:

(1) Make, model and serial number of the purchased device.

(2) Date of purchase.

(3) Copy of purchase order.

(4) Location of the control device in latitude and longitude coordinates in decimal degrees to an accuracy and precision of 5 decimals of a degree using the North American Datum of 1983.

(5) For the general requirements under § 129.139(b):

(i) The manufacturer's written operating instructions, procedures and maintenance schedule to ensure good air pollution control practices for minimizing emissions under § 129.139(b)(1).

(ii) The results of each monthly physical integrity check performed under § 129.139(b)(2).

(iii) The CPMS data which indicates the presence of a pilot flame during the device's operation under § 129.139(b)(3).

(iv) The results of the visible emissions test under § 129.139(b)(4) using Figure 22-1 in EPA Method 22 or a form which includes the following:

(A) The name of the company that owns or operates the control device.

(B) The location of the control device.

(C) The name and affiliation of the person performing the observation.

(D) The sky conditions at the time of observation.

(E) Type of control device.

(F) The clock start time.

(G) The observation period duration, in minutes and seconds.

(H) The accumulated emission time, in minutes and seconds.

(I) The clock end time.

(v) The results of the visible emissions test required in § 129.139(b)(6) under subparagraph (iv) following a return to operation from a maintenance or repair activity performed under § 129.139(b)(5).

(vi) The maintenance and repair log under § 129.139(b)(7).

(6) For a manufacturer-tested combustion control device under § 129.139(c), maintain the following records:

(i) The records specified in paragraph (5)(i)—(vi).

(ii) The manufacturer's specified inlet gas flow rate.

(iii) The CPMS results under § 129.139(c)(1)(i).

(iv) The results of each performance test conducted under § 129.139(c)(1)(ii) as performed under § 129.139(k).

(7) For an enclosed combustion device in § 129.139(d):

(i) The records specified in paragraph (5)(i)—(vi).

(ii) The results of each performance test conducted under § 129.139(d)(1)(i) as performed under § 129.139(k).

(iii) The results of each performance test conducted under § 129.139(d)(1)(ii) as performed under § 129.139(l).

(iv) The data and calculations for the CPMS installed, operated or maintained under § 129.139(d)(2).

(8) For a flare in § 129.139(e), the records specified in paragraph (5)(iii)—(vi).

(9) For a regenerative carbon adsorption device in § 129.139(g):

(i) The records specified in paragraph (5)(i) and (ii).

(ii) The results of the performance test conducted under § 129.139(f)(1)(i) as performed under § 129.139(k).

(iii) The results of the performance test conducted under § 129.139(f)(1)(ii) as performed under § 129.139(l).

(iv) The control device design analysis, if one is performed under § 129.139(g)(6).

(v) The data and calculations for a CPMS installed, operated or maintained under § 129.139(g)(1)—(5).

(vi) The schedule for carbon replacement, as determined by § 129.139(f)(2) or the design analysis requirements of § 129.139(g)(6) and records of each carbon replacement under § 129.139(f)(3) and (4).

(10) For a non-regenerative carbon adsorption device in § 129.139(h):

(i) The records specified in paragraph (5)(i) and (ii).

(ii) The results of the performance test conducted under § 129.139(f)(1)(i) as performed under § 129.139(k).

(iii) The results of the performance test conducted under § 129.139(f)(1)(ii) as performed under § 129.139(l).

(iv) The control device design analysis, if one is performed under § 129.139(h)(2).

(v) The schedule for carbon replacement, as determined by § 129.139(f)(2) or the design analysis requirements of § 129.139(h)(2) and records of each carbon replacement under § 129.139(f)(3) and (4).

(11) For a condenser or other non-destructive control device in § 129.139(i):

(i) The records specified in paragraph (5)(i) and (ii).

(ii) The results of the performance test conducted under § 129.139(i)(1)(i) as performed under § 129.139(k).

(iii) The results of the performance test conducted under § 129.139(i)(1)(ii) as performed under § 129.139(l).

(iv) The control device design analysis, if one is performed under § 129.139(i)(7).

(v) The site-specific monitoring plan under § 129.139(i)(2).

(vi) The data and calculations for a CPMS installed, operated or maintained under § 129.139(i)(3)—(5).

(k) *Reporting*. The owner or operator of a source subject to § 129.131(a) (relating to general provisions and applicability) shall do the following:

(1) Submit an initial annual report to the Air Program Manager of the appropriate Department Regional Office by ______ (*Editor's Note*: The blank refers to the date 1 year after the effective date of this rulemaking.) and annually thereafter on or before June 1.

(i) The responsible official must sign, date and certify compliance and include the certification in the initial report and each subsequent annual report.

(ii) The due date of the initial report may be extended with the written approval of the Air Program Manager of the appropriate Department Regional Office.

(2) Submit the reports under paragraph (3) in a manner prescribed by the Department.

(3) Submit the information specified in subparagraphs (i)—(ix) for each report as applicable:

(i) *Storage vessels*. The report for each storage vessel must include the information specified in subsection (b)(1)—(4) for the reporting period, as applicable.

(ii) *Natural gas-driven continuous bleed pneumatic controllers*. The initial report for each natural gas-driven continuous bleed pneumatic controller must include the information specified in subsection (c), as applicable. Subsequent reports must include the following:

(A) The information specified in subsection (c)(1) and (2) for each natural gas-driven continuous bleed pneumatic controller.

(B) The information specified in subsection (c)(3) and (4) for each natural gas-driven continuous bleed pneumatic controller installed during the reporting period.

(iii) *Natural gas-driven diaphragm pumps*. The report for each natural gas-driven diaphragm pump must include the following:

(A) The information specified in subsection (d)(1) and (2) for the reporting period, as applicable.

(B) A certification of the compliance status of each natural gas-driven diaphragm pump during the reporting period using one of the following:

(I) A certification that the emissions from the natural gas-driven diaphragm pump are routed to a control device or process under § 129.135(b)(1)(ii) or (c)(1). If the control device is installed during the reporting period under § 129.135(c)(2)(iii), include the information specified in subsection (d)(4).

(II) A certification under § 129.135(c)(2) that there is no control device or process available at the facility during the reporting period. This includes if a control device or process is removed from the facility during the reporting period.

(III) A certification according to § 129.135(c)(3)(ii)(C) that it is technically infeasible to capture and route emissions from:

(-a-) A natural gas-driven diaphragm pump installed during the reporting period to an existing control device or process.

(-b-) An existing natural gas-driven diaphragm pump to a control device or process installed during the reporting period.

(-c-) An existing natural gas-driven diaphragm pump to another control device or process located at the facility due to the removal of the original control device or process during the reporting period.

(iv) *Reciprocating compressors*. The report for each reciprocating compressor must include the information specified in subsection (e) for the reporting period, as applicable.

(v) *Centrifugal compressors*. The report for each centrifugal compressor must include the information specified in subsection (f) for the reporting period, as applicable.

(vi) *Fugitive emissions components*. The report for each fugitive emissions component must include the records of each monitoring survey conducted during the reporting period as specified in subsection (g)(3)(ii).

(vii) *Covers*. The report for each cover must include the information specified in subsection (h) for the reporting period, as applicable.

(viii) *Closed vent systems*. The report for each closed vent system must include the information specified in subsection (i)(1) and (2) for the reporting period, as applicable. The information specified in subsection (i)(3) is only required for the initial report or if the closed vent system was installed during the reporting period.

(ix) *Control devices*. The report for each control device must include the information specified in subsection (j), as applicable.

Conventional Producers Exhibit No. 2

Regulatory Analysis Form (Completed by Promulgating Agency) **(All Comments submitted on this regulation will appear on IRRC's website)**	***INDEPENDENT REGULATORY REVIEW COMMISSION***
(1) Agency: Environmental Protection	**IRRC Number:**
(2) Agency Number: 7 Identification Number: 579	

(3) PA Code Cite: 25 Pa. Code Chapter 129

(4) Short Title: Control of VOC Emissions from Conventional Oil and Natural Gas Sources

(5) Agency Contacts (List Telephone Number and Email Address):

Primary Contact: Laura Griffin, 717.772.3277, laurgriffi@pa.gov
Secondary Contact: Brian Chalfant, 717.783.8073, bchalfant@pa.gov

(6) Type of Rulemaking (check applicable box):	
☐ Proposed Regulation	☐ Emergency Certification Regulation;
☐ Final Regulation	☐ Certification by the Governor
☒ Final Omitted Regulation	☐ Certification by the Attorney General

(7) Briefly explain the regulation in clear and nontechnical language. (100 words or less)

This final-omitted rulemaking adds reasonably available control technology (RACT) requirements and RACT emission limitations for conventional oil and natural gas sources of volatile organic compound (VOC) emissions to Chapter 129 (relating to standards for sources). VOC emissions are precursors to the formation of ground-level ozone, a public health, welfare and environmental hazard. Sources affected by this final-omitted rulemaking include natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, reciprocating compressors, centrifugal compressors, fugitive emissions components and storage vessels installed at conventional well sites, gathering and boosting stations and natural gas processing plants, as well as storage vessels in the natural gas transmission and storage segment. While this final-omitted rulemaking requires VOC emission reductions, methane emissions are also reduced as a co-benefit, because both VOCs and methane are emitted from oil and gas operations.

This final-omitted rulemaking will be submitted to the United States Environmental Protection Agency (EPA) for approval as a revision to the Commonwealth's State Implementation Plan (SIP) following promulgation of the final-form regulation.

(8) State the statutory authority for the regulation. Include <u>specific</u> statutory citation.

This final-omitted rulemaking is issued under the authority of section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth. Section 5(a)(8) of the APCA (35 P.S. § 4005(a)(8)) also grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7671q). Notice of proposed rulemaking is omitted under section 204(3) of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. § 1204(3)), known as the Commonwealth Documents Law (CDL).

(9) Is the regulation mandated by any federal or state law or court order, or federal regulation? Are there any relevant state or federal court decisions? If yes, cite the specific law, case or regulation as well as any deadlines for action.

Yes, this final-omitted rulemaking to adopt RACT requirements and emission limitations for conventional oil and natural gas sources of VOC emissions is required under the CAA. In accordance with sections 172(c)(1), 182(b)(2)(A) and 184(b)(1)(B) of the CAA (42 U.S.C.A. §§ 7502(c)(1), 7511a(b)(2)(A) and 7511c(b)(1)(B)), this final-omitted rulemaking establishes the VOC emission limitations and other RACT requirements consistent with the EPA's recommendations in the "Control Techniques Guidelines for the Oil and Natural Gas Industry," EPA 453/B-16-001, Office of Air Quality Planning and Standards, EPA, October 2016 (2016 O&G CTG) as RACT for these sources in this Commonwealth. See 81 FR 74798 (October 27, 2016).[1] This final-omitted rulemaking is also necessary to attain and maintain the National Ambient Air Quality Standards (NAAQS) for ozone and protect public health and welfare from harmful air pollution.

Background on the Ozone National Ambient Air Quality Standards (NAAQS)

Under section 108 of the CAA (42 U.S.C.A. § 7408), the EPA is responsible for establishing NAAQS, or maximum allowable concentrations in the ambient air, for six criteria pollutants considered harmful to public health and the environment: ground-level ozone; particulate matter; nitrogen oxides (NO_x); carbon monoxide; sulfur dioxide; and lead. Section 109 of the CAA (42 U.S.C.A. § 7409) established two types of NAAQS: primary standards, which are limits set to protect public health; and secondary standards, which are limits set to protect public welfare and the environment. In section 302(h) of the CAA (42 U.S.C.A. § 7602(h)), effects on welfare are defined to include protection against visibility impairment and from damage to animals, crops, vegetation and buildings. The EPA established primary and secondary ground-level ozone NAAQS to protect public health and public welfare, including the environment.

On April 30, 1971, the EPA promulgated primary and secondary NAAQS for photochemical oxidants, which include ground-level ozone, under section 109 of the CAA. See 36 FR 8186 (April 30, 1971). These standards were set at an hourly average of 0.08 parts per million (ppm) total photochemical oxidants not to be exceeded more than 1 hour per year. On February 8, 1979, the EPA revised the level of the primary 1-hour ozone standard from 0.08 ppm to 0.12 ppm and set the secondary standard identical to the primary standard. See 44 FR 8202 (February 8, 1979). This revised 1-hour standard was reaffirmed on March 9, 1993. See 58 FR 13008 (March 9, 1993).

On July 18, 1997, the EPA concluded that revisions to the then-current 1-hour ozone primary standard to provide increased public health protection were appropriate to protect public health with an adequate margin of safety. Further, the EPA determined that it was appropriate to establish a primary standard of 0.08 ppm averaged over 8 hours. At this time, the EPA also established a secondary standard equal to the primary standard. See 62 FR 38856 (July 18, 1997). In 2004, the EPA designated 37 counties in this Commonwealth as 8-hour ozone nonattainment areas for the 1997 8-hour ozone NAAQS. See 69 FR 23858, 23931 (April 30, 2004). Based on the Department's certified ambient air monitoring data for the Commonwealth's 2020 ozone season, all monitored areas of this Commonwealth are attaining and maintaining the 1997 8-hour ozone NAAQS.

[1] See also EPA, Control Techniques Guidelines for the Oil and Natural Gas Industry, EPA 453/B-16-001, Office of Air Quality Planning and Standards, October 2016, https://www.epa.gov/sites/default/files/2016-10/documents/2016-ctg-oil-and-gas.pdf

In March 2008, the EPA lowered the primary and secondary ozone NAAQS to 0.075 ppm (75 parts per billion (ppb)) averaged over 8 hours to provide greater protection for children, other at-risk populations and the environment against the array of ozone-induced adverse health and welfare effects. See 73 FR 16436 (March 27, 2008). In May 2012, the EPA designated five areas in this Commonwealth as marginal nonattainment for the 2008 ozone NAAQS with the rest of this Commonwealth designated as attainment. See 77 FR 30088, 30143 (May 21, 2012). The five designated areas include all or a portion of Allegheny, Armstrong, Beaver, Berks, Bucks, Butler, Carbon, Chester, Delaware, Fayette, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia, Washington and Westmoreland Counties. As with the 1997 ozone NAAQS, the Department must ensure that the 2008 ozone NAAQS is attained and maintained by implementing permanent and enforceable control measures. Based on the Department's certified ambient air monitoring data for the Commonwealth's 2020 ozone season, all monitored areas of this Commonwealth are attaining and maintaining the 2008 8-hour ozone NAAQS. Adoption of the VOC emission control measures in this final-omitted rulemaking will allow the Commonwealth to continue its progress in attaining and maintaining the 2008 8-hour ozone NAAQS.

On October 26, 2015, the EPA again lowered the primary and secondary ozone NAAQS, this time to 0.070 ppm (70 ppb) averaged over 8 hours. See 80 FR 65291 (October 26, 2015). On June 4, 2018, the EPA designated Bucks, Chester, Delaware, Montgomery and Philadelphia counties as marginal nonattainment for the 2015 ozone NAAQS with the rest of this Commonwealth designated as attainment. See 83 FR 25776 (June 4, 2018). The Department must ensure that the 2015 8-hour ozone NAAQS is attained and maintained by implementing permanent and federally enforceable control measures. The certified ambient air ozone season monitoring data for the 2020 ozone season shows that all ozone samplers in this Commonwealth, except the Bristol sampler in Bucks County and the Northeast Airport and Northeast Waste samplers in Philadelphia cCounty, are monitoring attainment of the 2015 ozone NAAQS. Reductions in VOC emissions that are achieved following the adoption and implementation of RACT emission control measures for source categories covered by this final-omitted rulemaking will assist the Commonwealth in making substantial progress in achieving and maintaining the 2015 ozone NAAQS.

Clean Air Act (CAA) requirements: Implementation of permanent and Federally enforceable control measures for attaining and maintaining the ozone NAAQS

Section 101(a)(3) of the CAA (42 U.S.C.A. § 7401(a)(3)) provides that air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of States and local governments. Section 110(a) of the CAA (42 U.S.C.A. § 7410(a)) gives states the primary responsibility for achieving the NAAQS in nonattainment areas and for maintaining the NAAQS in areas of the state that are in attainment. Section 110(a) of the CAA provides that each state shall adopt and submit to the EPA a plan (a SIP) for implementation, maintenance and enforcement of the NAAQS or a revision to the NAAQS promulgated under section 109(b) of the CAA. Additionally, section 110(a) provides that the plan shall contain adequate provisions to prevent emissions activity within a state from contributing significantly to nonattainment in, or interference with maintenance by, any other state with respect to a NAAQS. The entirety of the SIP includes the regulatory programs, actions and commitments a state will carry out to implement its responsibilities under the CAA. Once approved by the EPA and incorporated into the state's SIP, the measures of a SIP are legally enforceable under both Federal and state law.

Section 172(c)(1) of the CAA (42 U.S.C.A. § 7502(c)(1)) provides that a SIP for states with nonattainment areas must include "reasonably available control measures," including RACT, for affected sources of VOC and NO_x emissions. The 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 technological and economic feasibility." See 44 FR 53761 (September 17, 1979). Upon submittal to the EPA, state regulations to control VOC emissions from affected sources are reviewed by the EPA to determine if the provisions meet the RACT requirements of the CAA and its implementing regulations designed to attain and maintain the ground-level ozone NAAQS. If the EPA determines that the provisions meet the applicable requirements of the CAA, the provisions are approved and incorporated as amendments to the state's SIP.

Section 182 of the CAA (42 U.S.C.A. § 7511a) requires that, for areas which exceed the ground-level ozone NAAQS, states must develop and implement a program that mandates certain major stationary sources develop and implement a RACT emission reduction program. Section 182(b)(2) of the CAA provides that for moderate ozone nonattainment areas, a state must revise its SIP to include RACT for sources of VOC emissions covered by a CTG document issued by the EPA prior to the area's date of attainment of the applicable ozone NAAQS. CTG documents provide states with information about a VOC emission source category and recommendations of what the EPA considers to be RACT for the source category to attain and maintain the applicable ozone NAAQS. State air pollution control agencies may use the Federal recommendations provided in the CTG to inform their own determination as to what constitutes RACT for VOC emissions from the covered source category for subject sources located within the state. State air pollution control agencies may implement other technically-sound approaches that are consistent with the CAA requirements and the EPA's implementing regulations or guidelines.

Although the designated nonattainment areas in this Commonwealth for the 2008 and 2015 ground-level ozone NAAQS are classified as "marginal" nonattainment, this entire Commonwealth is treated as a "moderate" ozone nonattainment area for RACT purposes because the Commonwealth is included in the Ozone Transport Region (OTR) established by operation of law under sections 176A and 184 of the CAA (42 U.S.C.A. §§ 7506a and 7511c). Section 176A grants the Administrator of the EPA the authority to establish an interstate transport region and the associated transport commission. Section 184(a) of the CAA established the OTR comprised of the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont and the Consolidated Metropolitan Statistical Area that includes the District of Columbia. More importantly, section 184(b)(1)(B) of the CAA requires that states in the OTR, including this Commonwealth, submit a SIP revision requiring implementation of RACT for all major stationary sources of VOC emissions in the state covered by a specific CTG and not just for those sources that are located in designated nonattainment areas of the state.

Consequently, the Commonwealth's SIP must include regulations implementing RACT requirements Statewide to control VOC emissions from the oil and natural gas sources covered by the 2016 O&G CTG. These sources, which are not regulated elsewhere in Chapter 129, were selected by the EPA because data and information has indicated that they are significant sources of VOC emissions. Significantly, this final-omitted rulemaking should achieve VOC emission reductions and lowered concentrations of ground-level ozone locally as well as in downwind states. Additionally, adoption of VOC emission reduction requirements is part of the Commonwealth's strategy, in concert with other OTR jurisdictions, to further reduce the transport of VOC ozone precursors and ground-level ozone throughout the OTR to attain and maintain the 8-hour ozone NAAQS. This final-omitted rulemaking will be submitted to the EPA for approval as a revision to the Commonwealth's SIP following promulgation of the final-form rulemaking.

The EPA's Control Techniques Guidelines for the Oil and Natural Gas Industry

The EPA issues guidance, in the form of a CTG, in place of regulations where the guidelines will be "substantially as effective as regulations" in reducing VOC emissions from a product or source category in ozone nonattainment areas. On October 27, 2016, the EPA issued the 2016 O&G CTG which provided information to assist states in determining what constitutes RACT for VOC emissions from select oil and natural gas industry emission sources. See 81 FR 74798. On March 9, 2018, the EPA had proposed to withdraw the 2016 O&G CTG in its entirety because the CTG had relied upon underlying data and conclusions made in the 2016 new source performance standards which the EPA was reconsidering. See 83 FR 10478 (March 9, 2018). However, on March 5, 2020, the EPA announced in the U.S. Office of Management and Budget's Spring 2020 Unified Agenda and Regulatory Plan that the EPA was no longer pursuing the action to withdraw the CTG and "the CTG will remain in place as published on October 27, 2016."[2]

While the EPA provided information and RACT recommendations through the 2016 O&G CTG for VOC emissions, it is up to the Department to determine what is RACT for each source category of VOC emissions. As mentioned by the EPA in the 2016 O&G CTG, state air pollution control agencies are free to implement other technically-sound approaches that are consistent with the CAA and the EPA's regulations. See 81 FR 74798, 74799. The EPA also further clarified that "the information contained in the CTG document is provided only as guidance" and "this guidance does not change, or substitute for, requirements specified in applicable sections of the CAA or the EPA's regulations; nor is it a regulation itself." *Id.* While the EPA will ultimately need to approve the Department's RACT determinations by reviewing and approving the revision to the Commonwealth's SIP, the Department has made the initial RACT determinations in this final-omitted rulemaking based on the entirety of information available to the Department, including the 2016 O&G CTG. In other words, the Department's obligation is to affirmatively determine what constitutes RACT for the source group identified in the 2016 O&G CTG, and the EPA's provision of guidance and data in the 2016 O&G CTG does not obviate that legal requirement. In the time since the 2016 O&G CTG was issued by the EPA, the Department acquired additional information and current emissions data specific to this Commonwealth that it analyzed to determine the RACT emission limitations and requirements established in this final-omitted rulemaking.

Findings of Failure to Submit, sanctions and deadline for action

If the EPA finds that a state has failed to submit an approvable SIP revision or has failed to implement the requirements of an approved measure in the SIP, the EPA issues a "finding of failure to submit notice." On November 16, 2020, the EPA issued a Final Rule entitled "Findings of Failure To Submit State Implementation Plan Revisions in Response to the 2016 Oil and Natural Gas Industry Control Techniques Guidelines for the 2008 Ozone National Ambient Air Quality Standards (NAAQS) and for States in the Ozone Transport Region," with an effective date of December 16, 2020. 85 FR 72963 (November 16, 2020). This Commonwealth was one of the five states issued a finding of failure to submit a SIP revision for the 2008 NAAQS addressing the RACT requirements associated with the 2016 O&G CTG by October 27, 2018. The EPA's finding triggers the sanction clock under section 179 of the CAA (42 U.S.C.A. § 7509). However, sanctions cannot be imposed until 18 months after the EPA makes the determination, and sanctions cannot be imposed if a deficiency has been corrected within the 18-month period. On June 16, 2022, the 18-month period ended. Thus, the Commonwealth must submit this final-omitted rulemaking as a SIP revision and the EPA must determine that the submittal is complete as soon as possible to remove the sanctions that took effect on June 16, 2022.

On December 16, 2021, the EPA issued a Finding of Failure to Submit SIP Revisions for the 2016 O&G CTG for the 2015 Ozone NAAQS and for states in the OTR, with an effective date of January 18, 2022. 86

[2] See Supplemental Notice of Potential Withdrawal of the Control Techniques Guidelines for the Oil and Natural Gas Industry, https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202004&RIN=2060-AT76

FR 71385 (December 16, 2021). This finding also triggers the sanction clock under section 179 of the CAA and the Commonwealth must submit a SIP revision for the 2015 Ozone NAAQS and the EPA must determine that the submittal is complete by July 18, 2023.

Section 179 of the CAA authorizes the EPA to use two types of sanctions: 1) imposing what are called “2:1 offsets” on new or modified sources of emissions; and 2) withholding of certain Federal highway funds. Under section 179 of the CAA and its implementing regulations, the Administrator first imposes “2:1 offsets” sanctions for new or modified major stationary sources in the nonattainment area which took effect on June 16, 2022, and then, if the deficiency has not been corrected within 6 months, also applies Federal highway funding sanctions. See 40 CFR 52.31 (relating to selection of sequence of mandatory sanctions for findings made pursuant to section 179 of the Clean Air Act).

Additionally, the findings trigger an obligation under section 110(c) of the CAA for the EPA to promulgate a Federal Implementation Plan (FIP) no later than 2 years after the effective date of the finding of failure to submit if the Commonwealth has not submitted, and the EPA has not approved, the required SIP submittal. If the EPA promulgates a FIP, the EPA could, in its discretion, also withhold a portion of the Department’s air pollution grant funds provided for in section 105 of the CAA. However, if the Commonwealth makes the required SIP submittal and the EPA takes final action to approve the submittal within 2 years of the effective date of these findings, the EPA is not required to promulgate a FIP.

The 2:1 offset sanctions went into effect for new or modified major stationary sources in this Commonwealth on June 16, 2022. If this final-omitted rulemaking and the separate unconventional rulemaking are not submitted to the EPA before December 16, 2022, the Federal highway sanctions will go into effect. The Department estimates that this could amount to the loss of hundreds of millions of dollars in Federal highway funds.

This final-omitted rulemaking is being promulgated to attain and maintain both the 2008 and the 2015 ozone NAAQS and will be submitted to the EPA for approval as a revision to the Commonwealth's SIP following promulgation. While this final-omitted rulemaking will not fully address the December 2021 and the November 2020 findings of failure to submit SIP revisions, the Department finalized a separate rulemaking for the RACT requirements for unconventional sources of VOC emissions. Once published in the *Pennsylvania Bulletin* as a final regulation, the separate rulemaking for unconventional sources of VOC emissions will also be submitted as a SIP revision. Together these two rulemakings address all the sources identified by the EPA in the 2016 O&G CTG. The Department is working toward completing both submittals and having them both deemed approvable by the EPA (completeness determination) by December 16, 2022, to lift the existing sanctions and to stop the mandatory sanction clock. The Pennsylvania Department of Transportation, the U.S. Department of Transportation Federal Highway Administration and the EPA have identified several projects across this Commonwealth that would not receive funding and would therefore not be completed.

Rulemaking Background and History

On December 17, 2019, the Board adopted the Control of VOC Emissions from Oil and Natural Gas Sources proposed rulemaking (referred to as the combined rulemaking). The combined rulemaking included VOC RACT requirements for five categories of oil and natural gas sources of VOC emissions in this Commonwealth, including sources used by the unconventional and conventional industries. On May 23, 2020, the combined rulemaking was published for a 66-day comment period at 50 Pa.B. 2633 (May 23, 2020). Three public hearings were held virtually on June 23, 24, and 25, 2020. Over 100 individuals provided verbal testimony. The comment period closed on July 27, 2020. The Board received over 4,500 comments, including comments from the House and Senate Environmental Resources and Energy Committees (ERE Committees), members of the General Assembly and the Independent Regulatory Review Commission (IRRC). The majority of the commentators expressed their support for the VOC RACT requirements in the combined rulemaking, noting the need to address air emissions from the oil and gas sector. On March 15, 2022, the Board adopted the combined rulemaking as a final-form rulemaking.

Also, on March 15, 2022, the Board submitted the final-form combined rulemaking to IRRC for its consideration. On April 26, 2022, the House ERE Committee sent a letter to IRRC indicating their disapproval of the combined rulemaking due to their interpretation of language in the Pennsylvania Grade Crude Development Act, the act of June 23, 2016 (P.L. 375, No. 52) (58 P.S. §§ 1201—1208), known as Act 52. The letter stated the House ERE Committee's position that Act 52 requires the Board to submit two rulemaking packages — one that applies to unconventional oil and natural gas sources and one that applies to conventional oil and natural gas sources. The House ERE Committee's letter to IRRC initiated the concurrent resolution process under section 7(d) of the RRA (71 P.S. § 745.7(d)) which allows the General Assembly to adopt a resolution that disapproves and permanently bars a final regulation from taking effect.

While the Board disagrees with the House ERE Committee's interpretation of Act 52, to address their concerns and avoid further delay, on May 4, 2022, the Board withdrew the combined rulemaking from IRRC's consideration. The Board then revised the combined rulemaking to apply only to unconventional oil and natural gas sources. On June 14, 2022, the Board adopted the revised Control of VOC Emissions from *Unconventional* Oil and Natural Gas Sources final-form rulemaking (referred to as the unconventional rulemaking). On July 21, 2022, IRRC unanimously approved the unconventional rulemaking.

Given the concerns expressed by the House ERE Committee and other commentators during the regulatory process for the combined rulemaking, the Department developed this separate rulemaking to control VOC emissions from *conventional* oil and natural gas sources.

Final-Omitted Rulemaking

Under section 201 of the CDL (45 P.S. § 1201), an agency is required to provide public notice of its intention to promulgate, amend or repeal administrative regulations. Section 202 of the CDL (45 P.S. § 1202) also requires agencies to review and consider any written comments submitted under section 201 and authorizes agencies to hold public hearings as appropriate. However, under section 204 of the CDL (45 P.S. § 1204), an agency may omit or modify the procedures specified in sections 201 and 202, if:

> The agency for good cause finds (and incorporates the finding and a brief statement of the reasons therefor in the order adopting the administrative regulation or change therein) that the procedures specified in sections 201 and 202 are in the circumstances impracticable, unnecessary, or contrary to the public interest.

Public notice and solicitation of public comments are impracticable, unnecessary, and contrary to the public interest for the amendments included in this final-omitted rulemaking. These procedures are impracticable and unnecessary because the VOC RACT requirements for the conventional oil and natural gas sources covered by this final-omitted rulemaking are identical to those contained in the combined rulemaking. As detailed above, the Board provided a comment period and three public hearings for the combined rulemaking and numerous members of the public provided testimony and submitted comments. Those comments were then used in the development of the final-form combined rulemaking and this final-omitted rulemaking. Therefore, this final-omitted rulemaking was already subject to a notice and comment process when the combined rulemaking was published in the *Pennsylvania Bulletin* on May 23, 2020.

The comment and response document included with this final-omitted rulemaking contains all comments received during the comment period for the combined rulemaking. Accordingly, there are responses in this RAF referencing changes made in response to comments on the combined rulemaking and reflected in this final-omitted rulemaking.

A public comment period is also contrary to the public interest because it will delay the implementation of the VOC RACT requirements in this final-omitted rulemaking, resulting in the Commonwealth being unable to satisfy the December 16, 2022, sanction deadline. If the Board were to provide notice of proposed rulemaking, and an additional public comment period and public hearings, the Commonwealth would be unable to submit this rulemaking to the EPA as a SIP revision by December 16, 2022. The entire rulemaking process in this Commonwealth takes about two years, sometimes longer, from start to finish, and the concurrent resolution process under the RRA further lengthens that timeline. Additional delay of this rulemaking would further harm the public interest because the Commonwealth would lose millions of dollars in Federal highway funding and much needed VOC and methane emission reductions. As a result, the Board finds that the use of the final-omitted rulemaking process is for good cause and that additional public comment in this case is not necessary or in the public interest.

(10) State why the regulation is needed. Explain the compelling public interest that justifies the regulation. Describe who will benefit from the regulation. Quantify the benefits as completely as possible and approximate the number of people who will benefit.

Need for the Regulation

Beyond the legal requirements detailed in the response to Question 9, the control measures in this final-omitted rulemaking are needed to reduce VOC emissions from conventional oil and natural gas sources throughout this Commonwealth. Affected conventional sources include storage vessels, natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, reciprocating compressors, centrifugal compressors, and fugitive emissions components installed at conventional well sites, gathering and boosting stations and natural gas processing plants. Implementing VOC emission control measures consistent with the RACT recommendations of the 2016 O&G CTG for these sources will help the Commonwealth continue to maintain the 1997 and 2008 ozone NAAQS, as well as attain and maintain the 2015 ozone NAAQS. Achieving and maintaining the ground-level ozone NAAQS provides healthful air quality which attracts and retains residents and industry, supports healthy environmental conditions for agriculture and the ecosystems of this Commonwealth, and reduces transport of VOC emissions and ground-level ozone to downwind states.

VOC emissions are precursors to the formation of ground-level ozone, a public health, welfare and environmental hazard.[3, 4] Ground-level ozone is not emitted directly to the atmosphere from any sources, including conventional oil and natural gas sources. However, ground-level ozone is formed by a photochemical reaction between emissions of VOC and NO_X in the presence of sunlight; conventional oil and natural gas sources do emit these two pollutants. Ground-level ozone is a highly reactive gas, which at sufficiently high concentrations can produce a wide variety of effects harmful to public health and welfare and the environment. Section 302(h) of the CAA defines effects on welfare to include adverse impacts on animals, wildlife, weather, climate, visibility, crops and vegetation. Additionally, climate change may

[3] EPA, Ecosystem Effects of Ozone Pollution, https://www.epa.gov/ground-level ozone-pollution/ecosystem-effects-ozone-pollution

[4] EPA, Health Effects of Ozone Pollution, https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution

The emission reductions for gathering and boosting stations and natural gas processing plants are included in the control of VOC emissions from unconventional oil and natural gas sources final regulation. The Department does not have information and data on how many gathering and boosting stations and natural gas processing plants are used in the conventional industry. Therefore, to avoid double counting of emission reductions, all the VOC and methane emission reductions from these sources are estimated in the control of VOC emissions from unconventional oil and natural gas sources final regulation.

Monetized public health benefits of attaining the 2015 ozone NAAQS

The EPA estimated that the monetized health benefits of attaining the 2015 8-hour ozone NAAQS of 0.070 ppm range from $1.5 billion to $4.5 billion on a National basis by 2025.[4] Prorating that benefit to this Commonwealth, based on population, results in a public health benefit of $63 million to $189 million. The Department is not stating that these estimated monetized health benefits would all be the result of implementing the RACT measures, but the EPA estimates are indicative of the benefits to Commonwealth residents of attaining the 2015 8-hour ozone NAAQS through the implementation of a suite of measures to control VOC emissions in the aggregate from different source categories.

Adverse health and welfare effects of ground-level ozone on humans, animals, and the environment

Exposure to high levels of ground-level ozone air pollution correlates to increased respiratory disease and higher mortality rates. Ozone can inflame and damage the lining of the lungs. Within a few days, the damaged cells are shed and replaced. Over a long time period, lung tissue may become permanently scarred, resulting in permanent loss of lung function and a lower quality of life. When ambient ozone levels are high, more people with asthma have attacks that require a doctor's attention or use of medication. Ozone also makes people more sensitive to allergens including pet dander, pollen and dust mites, all of which can trigger asthma attacks. The EPA has concluded that there is an association between high levels of ambient ozone and increased hospital admissions for respiratory ailments including asthma. While children, the elderly and those with respiratory problems are most at risk, even healthy individuals may experience increased respiratory ailments and other symptoms when they are exposed to high levels of ambient ozone while engaged in activities that involve physical exertion. High levels of ground-level ozone also affect animals including pets, livestock and wildlife in ways similar to humans.

In addition to causing adverse human and animal health effects, the EPA has concluded that ground-level ozone affects vegetation and ecosystems, leading to reductions in agricultural crop and commercial forest yields. Ozone damage to the foliage of trees and other plants can decrease the aesthetic value of ornamental species used in residential landscaping, as well as the natural beauty of parks and recreation areas. Through deposition, ground-level ozone also contributes to pollution in the Chesapeake Bay. These effects can have adverse impacts including loss of species diversity and changes to habitat quality and water and nutrient cycles. The implementation of additional measures to address ground-level ozone air quality in this Commonwealth is necessary to protect the public health and welfare and the environment.

Adverse effects of ground-level ozone on this Commonwealth's economy

The economic value of the impacts of ground-level ozone on this Commonwealth's farm crops, fruit industries, forests, parks and timber due to high concentrations of ground-level ozone can be calculated, through things such as crop yield loss from both reduced growth and smaller, lower-quality seeds and tubers with less oil or protein. If ozone episodes last a few days, visible injury to some leaf crops, including lettuce, spinach and tobacco, as well as visible injury to the leaves of ornamental plants, including grass, flowers and in the CTG document is provided only as guidance" and "this guidance does not change, or substitute for, requirements specified in applicable sections of the CAA or the EPA's regulations; nor is it a regulation itself." *Id.*

While the EPA will ultimately need to approve the Department's RACT determinations by reviewing and approving the revision to the Commonwealth's SIP, the Department has made the RACT determinations in this final-omitted rulemaking based on the entirety of information available to the Department, including the 2016 O&G CTG. In the time since the 2016 O&G CTG was issued by the EPA, the Department acquired additional information specific to this Commonwealth that it analyzed to determine the RACT emission limitations and requirements established in this final-omitted rulemaking. Additionally, due to this Commonwealth's status as a member of the OTR and the 2015 ozone nonattainment areas, the VOC emission reductions achieved by this final-omitted rulemaking are necessary to attain and maintain compliance with the ozone NAAQS and to fulfill the Commonwealth's obligation under Section 184 of the CAA.

The Department reviewed the RACT recommendations included in the 2016 O&G CTG for their applicability to the ground-level ozone reduction measures necessary for this Commonwealth and determined that the VOC emission reduction measures and other requirements are appropriate for this source category. However, based on analysis of data specific to this Commonwealth, the Department determined in three cases that RACT requirements more stringent than the recommendations in the 2016 O&G CTG are cost-effective and necessary to continue the Commonwealth's progress in attaining and maintaining the ground-level ozone NAAQS. The Department addressed VOC emissions from unconventional sources in a separate rulemaking.

To determine whether a specific air pollution control technology is an economically feasible option to be considered as RACT, the Department has used a cost-effectiveness benchmark in terms of annualized costs per ton of VOC emissions removed. The Department adjusted cost benchmarks established in previous RACT rulemakings of $5,500 per ton of VOC emissions removed, by multiplying by the Consumer Price Index differential between 2014 and 2021 to arrive at a benchmark of $6,600 per ton of VOC emissions removed.

Storage vessels

In the first case, the Department determined that a 2.7 TPY VOC emission threshold for storage vessels is RACT as it is technically and economically feasible for both potential to emit and actual emissions from all covered storage vessels. The Department's analysis examined the sensitivity to the initial capital cost of the control device and found that the total cost per ton of VOC reduced is below the RACT benchmark of $6,600 per ton reduced. Therefore, in § 129.133(a)(1) of this final-omitted rulemaking a 2.7 TPY VOC emission threshold applies to conventional owners or operators of storage vessels installed at conventional well sites gathering and boosting stations and natural gas processing plants, and in the natural gas transmission and storage segment, based on the Department's cost analysis.

Reciprocating compressor rod packing replacements

In the second case, § 129.136 of this final-omitted rulemaking establishes requirements for conventional owners or operators to implement reciprocating compressor rod packing replacements on reciprocating compressors located at conventional well sites. The requirement is based on the Department's analysis which shows that it is both technically and economically feasible to require reciprocating compressor rod packing replacements every 26,000 hours of operation or every three years, at the operator's discretion, for reciprocating compressors located at conventional well sites. The analysis showed that the cost-effectiveness of the rod packing replacement is highly sensitive to the emissions factor used to represent emissions from

New Mexico's proposal is less stringent than this final-omitted rulemaking for reciprocating compressors at well sites. The requirements for centrifugal compressors are identical to this final-form rulemaking. New Mexico's proposal is also less stringent than this final-omitted rulemaking as the LDAR requirement ranges from annual to quarterly based on the facility's VOC PTE.

New York's proposal contains elements that are less stringent than this final-omitted rulemaking, as well as more stringent than this final-omitted rulemaking. Proposed requirements for storage vessels, reciprocating compressors, and fugitive emissions components at well sites, gathering and boosting stations and natural gas processing plants are all less stringent. New York's proposal is more stringent than this final-omitted rulemaking for pneumatic controllers and pumps at well sites and gathering and boosting stations. The fugitive emissions component requirements for gathering and boosting stations are identical.

The requirements of this final-omitted rulemaking are more stringent than the proposal offered by Ohio considering their decision to not pursue an existing source rule. This final-omitted rulemaking is more stringent than Subparts OOOO and OOOOa as it establishes a 2.7 TPY threshold for storage vessels, requires the owners or operators of reciprocating compressors at well sites to perform rod packing changes or route rod packing emissions through a collection system to a control or process, and requires more frequent LDAR inspections.

With the exception of storage vessels, reciprocating compressors, and fugitive emissions components, the control measures established in this final-omitted rulemaking are consistent with and not more stringent than the recommendations of the 2016 O&G CTG. For storage vessels, reciprocating compressors, and fugitive emissions components, the requirements of this final-omitted rulemaking are cost-effective and necessary to attain and maintain the ozone NAAQS. This ensures that this Commonwealth will not be at a competitive disadvantage with other states.

(13) Will the regulation affect any other regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.

No other Department regulations or regulations of other Commonwealth agencies are affected by this final-omitted rulemaking.

(14) 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.)

During the development of the combined rulemaking, the Department consulted with the Air Quality Technical Advisory Committee (AQTAC) and the Small Business Compliance Advisory Committee (SBCAC). On December 14, 2017, the Department presented concepts to AQTAC on a potential rulemaking incorporating the 2016 O&G CTG recommendations. The Department returned to AQTAC on December 13, 2018, for an informational presentation on a preliminary draft Annex A. The proposed combined rulemaking was presented for a vote to AQTAC on April 11, 2019, and SBCAC on April 17, 2019. Both committees concurred with the Department's recommendation to move the proposed rulemaking forward to the Board for consideration.

The Department also conferred with the Citizens Advisory Council's (CAC) Policy and Regulatory Oversight Committee concerning the proposed combined rulemaking on May 7, 2019. On June 18, 2019, the full CAC concurred with the Department's recommendation to move the proposed rulemaking forward to the Board for consideration.

The Department also met with industry and environmental stakeholders to receive additional input on the proposed combined rulemaking. On January 24, 2019, the Department updated the Pennsylvania Grade Crude Development Advisory Council (CDAC) on the status of the rulemaking. On March 21, 2019, the Department provided an informational presentation to the Oil and Gas Technical Advisory Board. 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.

The Board adopted the proposed combined rulemaking at its meeting of December 17, 2019 by an 18 to 1 vote. On May 23, 2020, the proposed combined rulemaking was published at 50 Pa.B. 2633 (May 23, 2020). Due to requirements to mitigate the spread of the COVID-19 virus, the Board held three virtual public hearings on June 23, 24 and 25, 2020. A 66-day public comment period closed on July 27, 2020. The Board received 4,510 written comments and 121 individuals provided verbal testimony at the virtual public hearings. The written comments included individual letters and petitions with multiple signatories, so the total number of persons expressing interest in the proposed combined rulemaking was approximately 36,100. The Independent Regulatory Review Commission separately provided comments on the proposed combined rulemaking. The comments received on the proposed combined rulemaking are summarized in the Preamble to this final-omitted rulemaking and are also addressed in a separate Comment and Response Document that accompanies this final-omitted rulemaking. All comments on the proposed combined rulemaking were considered and addressed during the development of this final-omitted rulemaking.

The final-form combined rulemaking was presented to AQTAC on December 9, 2021, the CAC Policy and Regulatory Oversight Committee on January 12, 2022 and the CAC on January 18, 2022, and SBCAC on January 27, 2022.

(15) Identify the types and number of persons, businesses, small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012) and organizations which will be affected by the regulation. How are they affected?

The 2016 O&G CTG listed the following five North American Industry Classification System (NAICS) codes to identify businesses potentially covered by the 2016 O&G CTG. The NAICS is an industry classification system developed by Canada, Mexico and the United States that groups establishments into industry groups based on the economic activities, producing and nonproducing, in which the establishment is primarily engaged. More information about the United States portion of the NAICS is available at: http://www.census.gov/eos/www/naics/.

The types of persons, businesses, small businesses, and organizations in this Commonwealth that would be affected by this final-omitted rulemaking are the same as those identified in the 2016 O&G CTG:

1. 211111 Crude Petroleum and Natural Gas Extraction.
2. 211112 Natural Gas Liquid Extraction.
3. 221210 Natural Gas Distribution.
4. 486110 Pipeline Distribution of Crude Oil.
5. 486210 Pipeline Transportation of Natural Gas.

In 2017, these five NAICS codes were changed to the following codes with potentially affected sources, which should not affect the scope of sources affected in this Commonwealth:

1. 211120 Crude Petroleum Extraction.
2. 211130 Natural Gas Extraction.
3. 221210 Natural Gas Distribution.
4. 486110 Pipeline Distribution of Crude Oil.
5. 486210 Pipeline Transportation of Natural Gas.

In addition, there are two additional NAICS codes used by the oil and natural gas industry to report emissions to the Department's Air Information Management System (AIMS) database:

1. 213111 Drilling Oil and Gas Wells.
2. 486990 All Other Pipeline Transportation.

The United States Small Business Administration (SBA) has established definitions of what constitutes a small business concern and publishes a list of size standards for each NAICS code. See 13 CFR 121.201. The size standard, usually stated in number of employees or average annual receipts, represents the largest size that a business (including its subsidiaries and affiliates) may be to remain classified as a small business for SBA and Federal government programs. For crude petroleum extraction (211120) and natural gas extraction (211130), the SBA size definition is 1,250 employees. For natural gas distribution (221210) and drilling oil and gas wells (213111), the SBA size definition is 1,000 employees. For pipeline distribution of crude oil (486110), the SBA size definition is 1,500 employees. For pipeline transportation of natural gas (486210), the SBA size definition is $30 million in annual receipts. For all other pipeline transportation (486990), the SBA size definition is $40.5 million in annual receipts.

The Department gathered information about potentially affected facility owners or operators from the Environmental Facility Application Compliance Tracking System (eFACTS) database and the AIMS database. The eFACTS database contains facility-specific information, including NAICS code, for permitted facilities and some previously inspected facilities for which permits are not required. The AIMS database contains site-specific source and air pollutant emissions data, as well as NAICS codes, to maintain the air quality emission inventory. The eFACTS and AIMS databases include only those owners or operators of facilities with which the Department has had contact and for which the Department has a reason to input data. These owners or operators may or may not meet the definition of "small business" in accordance with Section 3 of the Regulatory Review Act (71 P.S. § 745.3).

The Department identified 4,719 client ID numbers for owners or operators of facilities in this Commonwealth using the Department's eFACTS and AIMS databases and the NAICS codes covered by the 2016 O&G CTG. These facilities include approximately 27,260 conventional well sites. There are also 486 gathering and boosting stations, 15 processing plants, and 120 transmission stations in this Commonwealth that the Department cannot distinguish between conventional and unconventional sources. If any of these sources are used by the conventional industry, they are regulated through this final-omitted rulemaking. A single client ID entity may own or operate more than one type of facility and may own or operate multiple facilities of the same facility type. The owners or operators of these facilities are all potentially subject to this final-omitted rulemaking as they are likely to have air contamination sources subject to this final-omitted rulemaking.

The Department categorized the 4,719 owners or operators based on their client type in eFACTS. Of the 4,719 owners or operators, the Department determined that 3,669 owners or operators have a "for profit" client type of estate/trust, individual, non-government, partnership-general, partnership-limited, or sole proprietorship. The Department assumed that these 3,669 “for profit” entities are likely a small business. The Department determined that 965 of the 4,719 owners or operators have a “for profit” client type of limited liability company, limited liability partnership, non-Pennsylvania corporation, or Pennsylvania corporation. The Department assumed that each of these 965 “for profit” entities is not a small business unless it meets the applicable SBA size definition based on the data available. The remaining 85 owners or operators with the client type of association/organization, authority, county, Federal agency, municipality, other (government), school district, or state agency are classified as “not for profit” client types. These types are not considered small businesses.

The Department requested the assistance of the Commonwealth’s Small Business Development Center’s (SBDC) Environmental Management Assistance Program (EMAP) in reviewing the list of “for profit” 965 owners or operators for their small business-size status. During the development of the proposed combined rulemaking, the SBDC EMAP searched the Hoover’s database and found 117 entries for the 1,170 owners or operators and provided the Hoover’s data for these 117 facilities to the Department. The Department reviewed the Hoover’s data for these 117 facility owners or operators and determined that 35 facilities meet the definition for small business size for the applicable NAICS code for this final-omitted rulemaking. Based on the above assumptions and analyses, the Department estimates that as many as 3,704 of the 4,719 owners or operators identified may meet the definition of small business as defined in Section 3 of the Regulatory Review Act.

The Department estimates an annual compliance cost of $9.8 million per year for the 4,719 owners or operators and an annual $15.7 million per year in savings due to conserving the natural gas rather than losing it through uncontrolled VOC emissions. See the discussion in the response to Question 17 for how these financial estimates are derived.

The Department estimates that the potentially affected 4,719 Pennsylvania facility owners or operators, including small business-sized owners or operators, could incur an average annual cost of approximately $2,073 per owner or operator. The Department estimates that each owner or operator could accrue an average annual savings from conservation of natural gas, assuming a price of $1.70 per thousand cubic feet (Mcf) of natural gas, of approximately $3,331 per owner or operator. This amounts to a net benefit per owner or operator of approximately $1,258.

As an alternative to the average costs per owner or operator cited above, an average cost can be generated using the average cost per facility and multiplying by the number of facilities the owner or operator controls. The Department estimates that, for the 27,260 potentially affected facilities, the average annual cost per facility is approximately $359 and the average annual savings from conservation of natural gas is approximately $577. This results in an average net benefit per facility of approximately $218.

The VOC emissions reductions from the potentially affected 27,260 facilities are estimated to be 9,204 TPY. See the discussion in the response to Question 17 for the details on estimated VOC emissions reductions. The estimated average amount of potential VOC emission reductions per affected facility is approximately 0.33 TPY. The estimated average VOC emission reductions per affected facility owner or operator will vary depending on the types of affected sources being monitored and controlled at the facility. The average cost per ton of reducing VOC emissions is approximately $1,063 and the average net benefit per ton of reducing VOC emissions is approximately $644.

Except for the requirements for storage vessels, reciprocating compressors at well sites, and fugitive emissions components, some of the potentially affected facility owners or operators, including small

Conventional Producers Exhibit No. 3

Regulatory Analysis Form

(Completed by Promulgating Agency)

(All Comments submitted on this regulation will appear on IRRC's website)

INDEPENDENT REGULATORY REVIEW COMMISSION

IRRC Number:

(1) Agency:

Environmental Protection

(2) Agency Number: 7

Identification Number: 580

(3) PA Code Cite: 25 Pa. Code Chapter 129

(4) Short Title: Control of VOC Emissions from Conventional Oil and Natural Gas Sources

(5) Agency Contacts (List Telephone Number and Email Address):

Primary Contact: Laura Griffin, 717.772.3277, laurgriffi@pa.gov
Secondary Contact: Brian Chalfant, 717.783.8073, bchalfant@pa.gov

(6) Type of Rulemaking (check applicable box):

☐ Proposed Regulation
☐ Final Regulation
☒ Final Omitted Regulation

☒ Emergency Certification Regulation;
☒ Certification by the Governor
☐ Certification by the Attorney General

(7) Briefly explain the regulation in clear and nontechnical language. (100 words or less)

This final-omitted rulemaking adds reasonably available control technology (RACT) requirements and RACT emission limitations for conventional oil and natural gas sources of volatile organic compound (VOC) emissions to Chapter 129 (relating to standards for sources). VOC emissions are precursors to the formation of ground-level ozone, a public health, welfare and environmental hazard. Sources affected by this final-omitted rulemaking include natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, reciprocating compressors, centrifugal compressors, fugitive emissions components and storage vessels installed at conventional well sites, gathering and boosting stations and natural gas processing plants, as well as storage vessels in the natural gas transmission and storage segment. While this final-omitted rulemaking requires VOC emission reductions, methane emissions are also reduced as a co-benefit, because both VOCs and methane are emitted from oil and gas operations.

This final-omitted rulemaking will be submitted to the United States Environmental Protection Agency (EPA) for approval as a revision to the Commonwealth's State Implementation Plan (SIP) following promulgation of the final-form regulation.

(8) State the statutory authority for the regulation. Include <u>specific</u> statutory citation.

This emergency certified final-omitted rulemaking is issued under the authority of section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth. Section 5(a)(8) of the APCA (35 P.S. § 4005(a)(8)) also grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7671q). Notice of proposed rulemaking is omitted under section 204(3) of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. § 1204(3)), known as the Commonwealth Documents Law (CDL). This final-omitted rulemaking is also being submitted as an emergency certified regulation under section 6(d) of the Regulatory Review Act (RRA) (71 P.S. § 745.6(d)).

(9) Is the regulation mandated by any federal or state law or court order, or federal regulation? Are there any relevant state or federal court decisions? If yes, cite the specific law, case or regulation as well as any deadlines for action.

Yes, this final-omitted rulemaking to adopt RACT requirements and emission limitations for conventional oil and natural gas sources of VOC emissions is required under the CAA. In accordance with sections 172(c)(1), 182(b)(2)(A) and 184(b)(1)(B) of the CAA (42 U.S.C.A. §§ 7502(c)(1), 7511a(b)(2)(A) and 7511c(b)(1)(B)), this final-omitted rulemaking establishes the VOC emission limitations and other RACT requirements consistent with the EPA's recommendations in the "Control Techniques Guidelines for the Oil and Natural Gas Industry," EPA 453/B-16-001, Office of Air Quality Planning and Standards, EPA, October 2016 (2016 O&G CTG) as RACT for these sources in this Commonwealth. See 81 FR 74798 (October 27, 2016).[1] This final-omitted rulemaking is also necessary to attain and maintain the National Ambient Air Quality Standards (NAAQS) for ozone and protect public health and welfare from harmful air pollution.

Background on the Ozone National Ambient Air Quality Standards (NAAQS)

Under section 108 of the CAA (42 U.S.C.A. § 7408), the EPA is responsible for establishing NAAQS, or maximum allowable concentrations in the ambient air, for six criteria pollutants considered harmful to public health and the environment: ground-level ozone; particulate matter; nitrogen oxides (NO_x); carbon monoxide; sulfur dioxide; and lead. Section 109 of the CAA (42 U.S.C.A. § 7409) established two types of NAAQS: primary standards, which are limits set to protect public health; and secondary standards, which are limits set to protect public welfare and the environment. In section 302(h) of the CAA (42 U.S.C.A. § 7602(h)), effects on welfare are defined to include protection against visibility impairment and from damage to animals, crops, vegetation and buildings. The EPA established primary and secondary ground-level ozone NAAQS to protect public health and public welfare, including the environment.

On April 30, 1971, the EPA promulgated primary and secondary NAAQS for photochemical oxidants, which include ground-level ozone, under section 109 of the CAA. See 36 FR 8186 (April 30, 1971). These standards were set at an hourly average of 0.08 parts per million (ppm) total photochemical oxidants not to be exceeded more than 1 hour per year. On February 8, 1979, the EPA revised the level of the primary 1-hour ozone standard from 0.08 ppm to 0.12 ppm and set the secondary standard identical to the primary standard. See 44 FR 8202 (February 8, 1979). This revised 1-hour standard was reaffirmed on March 9, 1993. See 58 FR 13008 (March 9, 1993).

On July 18, 1997, the EPA concluded that revisions to the then-current 1-hour ozone primary standard to provide increased public health protection were appropriate to protect public health with an adequate margin of safety. Further, the EPA determined that it was appropriate to establish a primary standard of 0.08 ppm averaged over 8 hours. At this time, the EPA also established a secondary standard equal to the primary standard. See 62 FR 38856 (July 18, 1997). In 2004, the EPA designated 37 counties in this Commonwealth as 8-hour ozone nonattainment areas for the 1997 8-hour ozone NAAQS. See 69 FR 23858, 23931 (April 30, 2004). Based on the Department's certified ambient air monitoring data for the Commonwealth's 2020 ozone season, all monitored areas of this Commonwealth are attaining and maintaining the 1997 8-hour ozone NAAQS.

[1] See also EPA, Control Techniques Guidelines for the Oil and Natural Gas Industry, EPA 453/B-16-001, Office of Air Quality Planning and Standards, October 2016, https://www.epa.gov/sites/default/files/2016-10/documents/2016-ctg-oil-and-gas.pdf

In March 2008, the EPA lowered the primary and secondary ozone NAAQS to 0.075 ppm (75 parts per billion (ppb)) averaged over 8 hours to provide greater protection for children, other at-risk populations and the environment against the array of ozone-induced adverse health and welfare effects. See 73 FR 16436 (March 27, 2008). In May 2012, the EPA designated five areas in this Commonwealth as marginal nonattainment for the 2008 ozone NAAQS with the rest of this Commonwealth designated as attainment. See 77 FR 30088, 30143 (May 21, 2012). The five designated areas include all or a portion of Allegheny, Armstrong, Beaver, Berks, Bucks, Butler, Carbon, Chester, Delaware, Fayette, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia, Washington and Westmoreland Counties. As with the 1997 ozone NAAQS, the Department must ensure that the 2008 ozone NAAQS is attained and maintained by implementing permanent and enforceable control measures. Based on the Department's certified ambient air monitoring data for the Commonwealth's 2020 ozone season, all monitored areas of this Commonwealth are attaining and maintaining the 2008 8-hour ozone NAAQS. Adoption of the VOC emission control measures in this final-omitted rulemaking will allow the Commonwealth to continue its progress in attaining and maintaining the 2008 8-hour ozone NAAQS.

On October 26, 2015, the EPA again lowered the primary and secondary ozone NAAQS, this time to 0.070 ppm (70 ppb) averaged over 8 hours. See 80 FR 65291 (October 26, 2015). On June 4, 2018, the EPA designated Bucks, Chester, Delaware, Montgomery and Philadelphia counties as marginal nonattainment for the 2015 ozone NAAQS with the rest of this Commonwealth designated as attainment. See 83 FR 25776 (June 4, 2018). The Department must ensure that the 2015 8-hour ozone NAAQS is attained and maintained by implementing permanent and federally enforceable control measures. The certified ambient air ozone season monitoring data for the 2020 ozone season shows that all ozone samplers in this Commonwealth, except the Bristol sampler in Bucks County and the Northeast Airport and Northeast Waste samplers in Philadelphia cCounty, are monitoring attainment of the 2015 ozone NAAQS. Reductions in VOC emissions that are achieved following the adoption and implementation of RACT emission control measures for source categories covered by this final-omitted rulemaking will assist the Commonwealth in making substantial progress in achieving and maintaining the 2015 ozone NAAQS.

Clean Air Act (CAA) requirements: Implementation of permanent and Federally enforceable control measures for attaining and maintaining the ozone NAAQS

Section 101(a)(3) of the CAA (42 U.S.C.A. § 7401(a)(3)) provides that air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of States and local governments. Section 110(a) of the CAA (42 U.S.C.A. § 7410(a)) gives states the primary responsibility for achieving the NAAQS in nonattainment areas and for maintaining the NAAQS in areas of the state that are in attainment. Section 110(a) of the CAA provides that each state shall adopt and submit to the EPA a plan (a SIP) for implementation, maintenance and enforcement of the NAAQS or a revision to the NAAQS promulgated under section 109(b) of the CAA. Additionally, section 110(a) provides that the plan shall contain adequate provisions to prevent emissions activity within a state from contributing significantly to nonattainment in, or interference with maintenance by, any other state with respect to a NAAQS. The entirety of the SIP includes the regulatory programs, actions and commitments a state will carry out to implement its responsibilities under the CAA. Once approved by the EPA and incorporated into the state's SIP, the measures of a SIP are legally enforceable under both Federal and state law.

Section 172(c)(1) of the CAA (42 U.S.C.A. § 7502(c)(1)) provides that a SIP for states with nonattainment areas must include "reasonably available control measures," including RACT, for affected sources of VOC and NO_x emissions. The 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 technological and economic feasibility." See 44 FR 53761 (September 17, 1979). Upon submittal to the EPA, state regulations to control VOC emissions from affected sources are reviewed by the EPA to determine if the provisions meet the RACT requirements of the CAA and its implementing regulations designed to attain and maintain the ground-level ozone NAAQS. If the EPA determines that the provisions meet the applicable requirements of the CAA, the provisions are approved and incorporated as amendments to the state's SIP.

Section 182 of the CAA (42 U.S.C.A. § 7511a) requires that, for areas which exceed the ground-level ozone NAAQS, states must develop and implement a program that mandates certain major stationary sources develop and implement a RACT emission reduction program. Section 182(b)(2) of the CAA provides that for moderate ozone nonattainment areas, a state must revise its SIP to include RACT for sources of VOC emissions covered by a CTG document issued by the EPA prior to the area's date of attainment of the applicable ozone NAAQS. CTG documents provide states with information about a VOC emission source category and recommendations of what the EPA considers to be RACT for the source category to attain and maintain the applicable ozone NAAQS. State air pollution control agencies may use the Federal recommendations provided in the CTG to inform their own determination as to what constitutes RACT for VOC emissions from the covered source category for subject sources located within the state. State air pollution control agencies may implement other technically-sound approaches that are consistent with the CAA requirements and the EPA's implementing regulations or guidelines.

Although the designated nonattainment areas in this Commonwealth for the 2008 and 2015 ground-level ozone NAAQS are classified as "marginal" nonattainment, this entire Commonwealth is treated as a "moderate" ozone nonattainment area for RACT purposes because the Commonwealth is included in the Ozone Transport Region (OTR) established by operation of law under sections 176A and 184 of the CAA (42 U.S.C.A. §§ 7506a and 7511c). Section 176A grants the Administrator of the EPA the authority to establish an interstate transport region and the associated transport commission. Section 184(a) of the CAA established the OTR comprised of the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont and the Consolidated Metropolitan Statistical Area that includes the District of Columbia. More importantly, section 184(b)(1)(B) of the CAA requires that states in the OTR, including this Commonwealth, submit a SIP revision requiring implementation of RACT for all major stationary sources of VOC emissions in the state covered by a specific CTG and not just for those sources that are located in designated nonattainment areas of the state.

Consequently, the Commonwealth's SIP must include regulations implementing RACT requirements Statewide to control VOC emissions from the oil and natural gas sources covered by the 2016 O&G CTG. These sources, which are not regulated elsewhere in Chapter 129, were selected by the EPA because data and information has indicated that they are significant sources of VOC emissions. Significantly, this final-omitted rulemaking should achieve VOC emission reductions and lowered concentrations of ground-level ozone locally as well as in downwind states. Additionally, adoption of VOC emission reduction requirements is part of the Commonwealth's strategy, in concert with other OTR jurisdictions, to further reduce the transport of VOC ozone precursors and ground-level ozone throughout the OTR to attain and maintain the 8-hour ozone NAAQS. This final-omitted rulemaking will be submitted to the EPA for approval as a revision to the Commonwealth's SIP following promulgation of the final-form rulemaking.

The EPA's Control Techniques Guidelines for the Oil and Natural Gas Industry

The EPA issues guidance, in the form of a CTG, in place of regulations where the guidelines will be "substantially as effective as regulations" in reducing VOC emissions from a product or source category in ozone nonattainment areas. On October 27, 2016, the EPA issued the 2016 O&G CTG which provided information to assist states in determining what constitutes RACT for VOC emissions from select oil and natural gas industry emission sources. See 81 FR 74798. On March 9, 2018, the EPA had proposed to withdraw the 2016 O&G CTG in its entirety because the CTG had relied upon underlying data and conclusions made in the 2016 new source performance standards which the EPA was reconsidering. See 83 FR 10478 (March 9, 2018). However, on March 5, 2020, the EPA announced in the U.S. Office of Management and Budget's Spring 2020 Unified Agenda and Regulatory Plan that the EPA was no longer pursuing the action to withdraw the CTG and "the CTG will remain in place as published on October 27, 2016."[2]

While the EPA provided information and RACT recommendations through the 2016 O&G CTG for VOC emissions, it is up to the Department to determine what is RACT for each source category of VOC emissions. As mentioned by the EPA in the 2016 O&G CTG, state air pollution control agencies are free to implement other technically-sound approaches that are consistent with the CAA and the EPA's regulations. See 81 FR 74798, 74799. The EPA also further clarified that "the information contained in the CTG document is provided only as guidance" and "this guidance does not change, or substitute for, requirements specified in applicable sections of the CAA or the EPA's regulations; nor is it a regulation itself." *Id.* While the EPA will ultimately need to approve the Department's RACT determinations by reviewing and approving the revision to the Commonwealth's SIP, the Department has made the initial RACT determinations in this final-omitted rulemaking based on the entirety of information available to the Department, including the 2016 O&G CTG. In other words, the Department's obligation is to affirmatively determine what constitutes RACT for the source group identified in the 2016 O&G CTG, and the EPA's provision of guidance and data in the 2016 O&G CTG does not obviate that legal requirement. In the time since the 2016 O&G CTG was issued by the EPA, the Department acquired additional information and current emissions data specific to this Commonwealth that it analyzed to determine the RACT emission limitations and requirements established in this final-omitted rulemaking.

Findings of Failure to Submit, sanctions and deadline for action

If the EPA finds that a state has failed to submit an approvable SIP revision or has failed to implement the requirements of an approved measure in the SIP, the EPA issues a "finding of failure to submit notice." On November 16, 2020, the EPA issued a Final Rule entitled "Findings of Failure To Submit State Implementation Plan Revisions in Response to the 2016 Oil and Natural Gas Industry Control Techniques Guidelines for the 2008 Ozone National Ambient Air Quality Standards (NAAQS) and for States in the Ozone Transport Region," with an effective date of December 16, 2020. 85 FR 72963 (November 16, 2020). This Commonwealth was one of the five states issued a finding of failure to submit a SIP revision for the 2008 NAAQS addressing the RACT requirements associated with the 2016 O&G CTG by October 27, 2018. The EPA's finding triggers the sanction clock under section 179 of the CAA (42 U.S.C.A. § 7509). However, sanctions cannot be imposed until 18 months after the EPA makes the determination, and sanctions cannot be imposed if a deficiency has been corrected within the 18-month period. On June 16, 2022, the 18-month period ended. Thus, the Commonwealth must submit this final-omitted rulemaking as a SIP revision and the EPA must determine that the submittal is complete as soon as possible to remove the sanctions that took effect on June 16, 2022.

On December 16, 2021, the EPA issued a Finding of Failure to Submit SIP Revisions for the 2016 O&G CTG for the 2015 Ozone NAAQS and for states in the OTR, with an effective date of January 18, 2022. 86 FR 71385 (December 16, 2021). This finding also triggers the sanction clock under section 179 of the CAA

[2] See Supplemental Notice of Potential Withdrawal of the Control Techniques Guidelines for the Oil and Natural Gas Industry, https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202004&RIN=2060-AT76

and the Commonwealth must submit a SIP revision for the 2015 Ozone NAAQS and the EPA must determine that the submittal is complete by July 18, 2023.

Section 179 of the CAA authorizes the EPA to use two types of sanctions: 1) imposing what are called “2:1 offsets” on new or modified sources of emissions; and 2) withholding of certain Federal highway funds. Under section 179 of the CAA and its implementing regulations, the Administrator first imposes “2:1 offsets” sanctions for new or modified major stationary sources in the nonattainment area which took effect on June 16, 2022, and then, if the deficiency has not been corrected within 6 months, also applies Federal highway funding sanctions. See 40 CFR 52.31 (relating to selection of sequence of mandatory sanctions for findings made pursuant to section 179 of the Clean Air Act).

Additionally, the findings trigger an obligation under section 110(c) of the CAA for the EPA to promulgate a Federal Implementation Plan (FIP) no later than 2 years after the effective date of the finding of failure to submit if the Commonwealth has not submitted, and the EPA has not approved, the required SIP submittal. If the EPA promulgates a FIP, the EPA could, in its discretion, also withhold a portion of the Department’s air pollution grant funds provided for in section 105 of the CAA. However, if the Commonwealth makes the required SIP submittal and the EPA takes final action to approve the submittal within 2 years of the effective date of these findings, the EPA is not required to promulgate a FIP.

The 2:1 offset sanctions went into effect for new or modified major stationary sources in this Commonwealth on June 16, 2022. If this final-omitted rulemaking and the separate unconventional rulemaking are not submitted to the EPA before December 16, 2022, the Federal highway sanctions will go into effect. The Department estimates that this could amount to the loss of hundreds of millions of dollars in Federal highway funds.

This final-omitted rulemaking is being promulgated to attain and maintain both the 2008 and the 2015 ozone NAAQS and will be submitted to the EPA for approval as a revision to the Commonwealth's SIP following promulgation. While this final-omitted rulemaking will not fully address the December 2021 and the November 2020 findings of failure to submit SIP revisions, the Department finalized a separate rulemaking for the RACT requirements for unconventional sources of VOC emissions. Once published in the *Pennsylvania Bulletin* as a final regulation, the separate rulemaking for unconventional sources of VOC emissions will also be submitted as a SIP revision. Together these two rulemakings address all the sources identified by the EPA in the 2016 O&G CTG. The Department is working toward completing both submittals and having them both deemed approvable by the EPA (completeness determination) by December 16, 2022, to lift the existing sanctions and to stop the mandatory sanction clock. The Pennsylvania Department of Transportation, the U.S. Department of Transportation Federal Highway Administration and the EPA have identified several projects across this Commonwealth that would not receive funding and would therefore not be completed. Thus, this emergency certified final-omitted rulemaking will be effective upon publication in the *Pennsylvania Bulletin*.

Rulemaking Background and History

On December 17, 2019, the Board adopted the Control of VOC Emissions from Oil and Natural Gas Sources proposed rulemaking (referred to as the combined rulemaking). The combined rulemaking included VOC RACT requirements for five categories of oil and natural gas sources of VOC emissions in this Commonwealth, including sources used by the unconventional and conventional industries. On May 23, 2020, the combined rulemaking was published for a 66-day comment period at 50 Pa.B. 2633 (May 23, 2020). Three public hearings were held virtually on June 23, 24, and 25, 2020. Over 100 individuals provided verbal testimony. The comment period closed on July 27, 2020. The Board received over 4,500 comments, including comments from the House and Senate Environmental Resources and Energy Committees (ERE Committees), members of the General Assembly and the Independent Regulatory Review Commission (IRRC). The majority of the commentators expressed their support for the VOC RACT requirements in the combined rulemaking, noting the need to address air emissions from the oil and gas sector. On March 15, 2022, the Board adopted the combined rulemaking as a final-form rulemaking.

Also, on March 15, 2022, the Board submitted the final-form combined rulemaking to IRRC for its consideration. On April 26, 2022, the House ERE Committee sent a letter to IRRC indicating their disapproval of the combined rulemaking due to their interpretation of language in the Pennsylvania Grade Crude Development Act, the act of June 23, 2016 (P.L. 375, No. 52) (58 P.S. §§ 1201—1208), known as Act 52. The letter stated the House ERE Committee's position that Act 52 requires the Board to submit two rulemaking packages — one that applies to unconventional oil and natural gas sources and one that applies to conventional oil and natural gas sources. The House ERE Committee's letter to IRRC initiated the concurrent resolution process under section 7(d) of the RRA (71 P.S. § 745.7(d)) which allows the General Assembly to adopt a resolution that disapproves and permanently bars a final regulation from taking effect.

While the Board disagrees with the House ERE Committee's interpretation of Act 52, to address their concerns and avoid further delay, on May 4, 2022, the Board withdrew the combined rulemaking from IRRC's consideration. The Board then revised the combined rulemaking to apply only to unconventional oil and natural gas sources. On June 14, 2022, the Board adopted the revised Control of VOC Emissions from *Unconventional* Oil and Natural Gas Sources final-form rulemaking (referred to as the unconventional rulemaking). On July 21, 2022, IRRC unanimously approved the unconventional rulemaking.

Given the concerns expressed by the House ERE Committee and other commentators during the regulatory process for the combined rulemaking, the Department developed a separate rulemaking to control VOC emissions from *conventional* oil and natural gas sources. At the October 12, 2022, meeting, the Board adopted the "Control of VOC Emissions from Conventional Oil and Natural Gas Sources" final-omitted rulemaking, Regulation #7-579. On November 14, 2022, the House ERE Committee disapproved the previously adopted final-omitted regulation triggering the 14-calendar day legislative review period under section 5.1(j.2) of the RRA (71 P.S. § 745.5a(j.2)). During that 14-day period, the regulation may not be published in the *Pennsylvania Bulletin*. The 14-day period began after IRRC issued its approval order of Regulation #7-579 on November 17, 2022, and the 2022 legislative session ended on November 30, 2022. Under section 5.1(j.3) of the RRA (71 P.S. § 745.5a(j.3), the legislative review period will therefore run into the 2023 legislative session ensuring that Regulation #7-579 could not be published by the December 16, 2022, sanction deadline.

This final-omitted rulemaking, Regulation #7-580, is identical to the previous final-omitted rulemaking (Regulation #7-579) except it has received an emergency certification of need from the Governor.

Final-Omitted Rulemaking and Emergency Certification of Need

Under section 201 of the CDL (45 P.S. § 1201), an agency is required to provide public notice of its intention to promulgate, amend or repeal administrative regulations. Section 202 of the CDL (45 P.S. § 1202) also requires agencies to review and consider any written comments submitted under section 201 and authorizes agencies to hold public hearings as appropriate. However, under section 204 of the CDL (45 P.S. § 1204), an agency may omit or modify the procedures specified in sections 201 and 202, if:

> The agency for good cause finds (and incorporates the finding and a brief statement of the reasons therefor in the order adopting the administrative regulation or change therein) that

the procedures specified in sections 201 and 202 are in the circumstances impracticable, unnecessary, or contrary to the public interest.

Public notice and solicitation of public comments are impracticable, unnecessary, and contrary to the public interest for the amendments included in this final-omitted rulemaking. These procedures are impracticable and unnecessary because the VOC RACT requirements for the conventional oil and natural gas sources covered by this final-omitted rulemaking are identical to those contained in the combined rulemaking. As detailed above, the Board provided a comment period and three public hearings for the combined rulemaking and numerous members of the public provided testimony and submitted comments. Those comments were then used in the development of the final-form combined rulemaking and this final-omitted rulemaking. Therefore, this final-omitted rulemaking was already subject to a notice and comment process when the combined rulemaking was published in the *Pennsylvania Bulletin* on May 23, 2020.

The comment and response document included with this final-omitted rulemaking contains all comments received during the comment period for the combined rulemaking. Accordingly, there are responses in this RAF referencing changes made in response to comments on the combined rulemaking and reflected in this final-omitted rulemaking.

A public comment period is also contrary to the public interest because it will delay the implementation of the VOC RACT requirements in this final-omitted rulemaking, resulting in the Commonwealth being unable to satisfy the December 16, 2022, sanction deadline. If the Board were to provide notice of proposed rulemaking, and an additional public comment period and public hearings, the Commonwealth would be unable to submit this rulemaking to the EPA as a SIP revision by December 16, 2022. The entire rulemaking process in this Commonwealth takes about two years, sometimes longer, from start to finish, and the concurrent resolution process under the RRA further lengthens that timeline. Additional delay of this rulemaking would further harm the public interest because the Commonwealth would lose millions of dollars in Federal highway funding and much needed VOC and methane emission reductions. As a result, the Board finds that the use of the final-omitted rulemaking process is for good cause and that additional public comment in this case is not necessary or in the public interest.

This final-omitted rulemaking is also being submitted as an emergency certified regulation. Section 6(d) of the RRA allows an agency to immediately implement a final-omitted regulation when the Governor certifies that promulgation is necessary to respond to an emergency circumstance specified in the RRA. On DATE, 2022, Governor Tom Wolf issued a Certification of Need for Emergency Regulation finding that this final-omitted rulemaking is required to prevent "the need for supplemental or deficiency appropriations of greater than $1,000,000." (71 P.S. § 745.6(d)).

Governor Tom Wolf determined that this emergency certified final-omitted rulemaking is necessary to ensure the Commonwealth complies with the Federal CAA and the APCA. As discussed above, if the Commonwealth does not submit this final-omitted rulemaking to the EPA as a SIP revision by the December 16, 2022 sanction deadline, Federal highway funding will be withheld until the submission is made. For the upcoming fiscal year, Federal highway funds subject to these sanctions are estimated to be in the hundreds of millions of dollars in nonattainment areas. The Pennsylvania Department of Transportation, the U.S. Department of Transportation Federal Highway Administration and the EPA have identified several projects in the nonattainment areas that would not receive funding and would therefore not be completed or would be subject to delay. Thus, this emergency certified final-omitted rulemaking will be effective upon publication in the *Pennsylvania Bulletin*.

The Department estimates an annual compliance cost of $9.8 million per year for the 4,719 owners or operators and an annual $15.7 million per year in savings due to conserving the natural gas rather than losing it through uncontrolled VOC emissions. See the discussion in the response to Question 17 for how these financial estimates are derived.

The Department estimates that the potentially affected 4,719 Pennsylvania facility owners or operators, including small business-sized owners or operators, could incur an average annual cost of approximately $2,073 per owner or operator. The Department estimates that each owner or operator could accrue an average annual savings from conservation of natural gas, assuming a price of $1.70 per thousand cubic feet (Mcf) of natural gas, of approximately $3,331 per owner or operator. This amounts to a net benefit per owner or operator of approximately $1,258.

As an alternative to the average costs per owner or operator cited above, an average cost can be generated using the average cost per facility and multiplying by the number of facilities the owner or operator controls. The Department estimates that, for the 27,260 potentially affected facilities, the average annual cost per facility is approximately $359 and the average annual savings from conservation of natural gas is approximately $577. This results in an average net benefit per facility of approximately $218.

The VOC emissions reductions from the potentially affected 27,260 facilities are estimated to be 9,204 TPY. See the discussion in the response to Question 17 for the details on estimated VOC emissions reductions. The estimated average amount of potential VOC emission reductions per affected facility is approximately 0.33 TPY. The estimated average VOC emission reductions per affected facility owner or operator will vary depending on the types of affected sources being monitored and controlled at the facility. The average cost per ton of reducing VOC emissions is approximately $1,063 and the average net benefit per ton of reducing VOC emissions is approximately $644.

Except for the requirements for storage vessels, reciprocating compressors at well sites, and fugitive emissions components, some of the potentially affected facility owners or operators, including small businesses, are likely in compliance with this final-omitted rulemaking for certain covered sources under 40 CFR Part 60, Subparts OOOO and OOOOa. Certain owners or operators may likely be in compliance with the requirements of this final-omitted rulemaking through compliance with existing operating permits, general permits, or exemption requirements. It is important that an owner or operator compare the requirements of this final-omitted rulemaking with their current requirements to ensure they comply with the more stringent VOC emission control requirements.

(16) 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.

This final-omitted rulemaking will apply statewide to owners or operators of one or more of the following oil and natural gas sources of VOC emissions which were constructed on or before the effective date of this final-omitted rulemaking: storage vessels, natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, reciprocating compressors, centrifugal compressors, and fugitive emission components installed at conventional well sites.

As discussed in detail in Question 15, the Department identified 4,719 client ID numbers for owners or operators of the approximately 27,260 conventional oil and natural gas facilities in this Commonwealth. Based on the analysis described in the response to Question 15, approximately 3,704 of the 4,719 owners or operators may meet the definition of small business as defined in Section 3 of the Regulatory Review Act. Based on information supplied by commentators, the Oil and Gas Production Report and AIMS, the

Conventional Producers Exhibit No. 4

Bureau of Air Quality

COMMENT AND RESPONSE DOCUMENT

Control of VOC Emissions from Conventional Oil and Natural Gas Sources

25 Pa. Code Chapter 129
Environmental Quality Board Regulation #7-579

Originally Published for Public Comment under #7-544
(Independent Regulatory Review Commission #3256)
50 Pa.B. 2633 (May 23, 2020)

public safety or health or the property of some other person or entity" in accordance with sections 152(f) and (g) of the Registration Law. In fact, in the 2016 O&G CTG, the EPA allowed for this certification by either a licensed professional engineer (PE) or an in-house engineer because in-house engineers may be more knowledgeable about site design and control than a third-party PE.

7. Comment: IRRC also commented that commentators representing the conventional oil and gas industry are uncertain whether the proposed regulation applies to conventional oil and gas operations in this Commonwealth. IRRC commented that these industry representatives claim that the regulation would apply to some equipment utilized in conventional oil and gas operations but were informed that this regulation would not apply to their sector of the industry. IRRC asks the Board to clarify which provisions, if any, apply to the conventional oil and gas industry.

Response: Given the concerns expressed by the commentators during the regulatory process for the combined rulemaking, the Department developed this separate rulemaking, including a separate Regulatory Analysis Form, to control VOC emissions from *conventional* oil and natural gas sources.

The Department estimates that approximately 95 of the 27,193 conventional well sites may need to implement a new LDAR program because those well sites produce at least 15 BOE per day with at least one well producing a minimum of 5 BOE. Based on the Department's record of when conventional well sites were drilled, the Department assumes that 67 conventional well sites are subject to Subpart OOOOa, which applies to oil and natural gas facilities constructed, modified or reconstructed after September 18, 2015. Of the approximately 95 conventional well sites that may be required to implement a new LDAR program under this final-omitted rulemaking, 31 would have to meet the annual instrument-based inspection requirement and the remaining 64 would have to meet the quarterly instrument-based inspection requirement.

8. Comment: IRRC notes that the EQB states in Section 9 of the RAF that "Even though a finalized withdrawal of the 2016 O&G CTG would relieve the state of the requirement to address RACT for existing oil and natural gas sources, the Department is still obligated to reduce ozone and VOC emissions to ensure that the NAAQS is attained and maintained under section 110 of the Clean Air Act (CAA). 42 U.S.C.A. § 7410." Commentators have asked the EQB to consider another public comment period should the federal regulations or guidelines be significantly changed before promulgation of the final-form rulemaking. IRRC asks the EQB to explain how it will proceed if there are significant changes made to 2016 O&G CTG or 40 CFR Part 60, Subparts OOOO and OOOOa prior to the promulgation of the final-form rulemaking.

Response: The relevant Federal regulations and the 2016 O&G CTG have not significantly changed and will not change prior to promulgation of this final-omitted rulemaking. In March of 2020, the Department received notice that the EPA had decided not to proceed with the withdrawal of the 2016 O&G CTG. The EPA announced in the OMB's Spring 2020 Unified Agenda and Regulatory Plan that the 2016 O&G CTG will remain in place as published on October 27, 2016. On November 16, 2020, the EPA issued a Final Rule entitled "Findings of Failure To Submit State Implementation Plan Revisions in Response to the 2016 Oil and Natural Gas Industry Control Techniques Guidelines for the 2008 Ozone NAAQS and for States in the Ozone Transport Region (OTR)." 85 FR 72963 (November 16, 2020). This Commonwealth was one of the five states issued a finding of failure to submit a SIP revision incorporating the 2016 O&G CTG RACT requirements by October 27, 2018. The EPA's finding triggers the sanction clock under the CAA. The Commonwealth must submit this final-omitted rulemaking, along with the unconventional rulemaking, as a SIP revision and the EPA must determine that the submittal is complete within 18 months of the effective date (December 16, 2020) of the EPA's finding, that is, by June 16, 2022, or sanctions may be imposed. The offset ratio sanctions went into effect on June 16, 2022, and the Commonwealth now has until December 16, 2022 to submit the SIP revision or highway funding sanctions will be imposed.

9. Comment: IRRC notes that the Preamble and the RAF do not adequately describe the rationale or need for certain requirements or exclusions. Commentators representing environmental concerns identify two key provisions that they say are contrary to the goals of this rulemaking. The first is the exemption of low-producing wells from the requirements of LDAR inspections. The second one is the "step down" provision that allows owners or operators to decrease the frequency of LDAR inspections if the percentage of leaking components is less than 2% for two consecutive quarterly inspections. Owners or operators would have the option to reduce the inspection frequency to semi-annually. Opponents of these two measures say it is "faulty and risky" for the Department to assume that conventional operations do not emit at levels high enough to have a significant impact on air quality and climate. IRRC asks the Board to explain the need for each provision and how determinations were made, as well as what data was used to the justify the exemptions.

Response: The control measures in this final-omitted rulemaking are reasonably necessary to attain and maintain both the 2008 and 2015 ozone NAAQS. The Department removed the stepdown provision and altered the production thresholds for LDAR requirements in this final-omitted rulemaking. For fugitive emission components, the proposed combined rulemaking established monthly AVO inspections and quarterly instrument based LDAR inspections for well sites with a well that produces, on average, 15 BOE per well per day. The proposed combined rulemaking also established a stepdown provision which enabled owners or operators to track the percentage of leaking components at each inspection and, if in two consecutive inspections there were less than 2% of components leaking, the owner or operator could reduce the quarterly schedule of instrument based LDAR to semiannual. However, the Department's analysis shows that it is cost effective to implement instrument based LDAR at conventional well sites with an average production of 15 BOE per day, with the frequency based on individual well production on the well site. For applicable conventional well sites with at least one well that produces equal to or greater than 15 BOE per day the owner or operator must perform quarterly instrument based LDAR inspections. For applicable conventional well sites with at least one well that is less than 15 BOE per day and equal to or greater than 5 BOE per day, the owner or operator must perform annual instrument based LDAR inspections. The owner or operator is required to track well site production and the individual production of each well on the conventional well site on an annual basis. The owner or operator may reduce the inspection frequency based on the production calculations which shows two consecutive years of production in the lower category. The owner or operator shall increase the inspection frequency immediately if the production calculations show an increase that is subject to more frequent inspections.

10. Comment: IRRC notes that representatives from the oil and natural gas industry observe that no analysis has been shared by the EQB to support the Department's conclusion that the proposed requirements that are more stringent than EPA's 2016 O&G CTG "are reasonably

Conventional Producers Exhibit No. 5

Preamble to Final-omitted Conventional VOC Regulation

FINAL-OMITTED RULEMAKING
ENVIRONMENTAL QUALITY BOARD
[25 PA. CODE CH. 129]

Control of VOC Emissions from Conventional Oil and Natural Gas Sources

The Environmental Quality Board (Board) amends Chapter 129 (relating to standards for sources) to read as set forth in Annex A. This final-omitted rulemaking amends §§ 129.131—129.140 to adopt reasonably available control technology (RACT) requirements and RACT emission limitations for conventional oil and natural gas sources of volatile organic compound (VOC) emissions. These sources include natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, reciprocating compressors, centrifugal compressors, fugitive emissions components and storage vessels installed at conventional well sites, gathering and boosting stations and natural gas processing plants, as well as storage vessels in the natural gas transmission and storage segment. The Board adds definitions, acronyms and United States Environmental Protection Agency (EPA) methods to § 129.132 (relating to definitions, acronyms and EPA methods) to support the implementation of the control measures. Notice of proposed rulemaking is omitted under section 204(3) of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. § 1204(3)), known as the Commonwealth Documents Law (CDL).

Rulemaking Background and History

On December 17, 2019, the Board adopted the Control of VOC Emissions from Oil and Natural Gas Sources proposed rulemaking (referred to as the combined rulemaking). The combined rulemaking included VOC RACT requirements for five categories of oil and natural gas sources of VOC emissions in this Commonwealth, including sources used by the unconventional and conventional industries. On May 23, 2020, the combined rulemaking was published for a 66-day comment period at 50 Pa.B. 2633 (May 23, 2020). Three public hearings were held virtually on June 23, 24, and 25, 2020. Over 100 individuals provided verbal testimony. The comment period closed on July 27, 2020. The Board received over 4,500 comments, including comments from the House and Senate Environmental Resources and Energy Committees (ERE Committees), members of the General Assembly and the Independent Regulatory Review Commission (IRRC). The majority of the commentators expressed their support for the VOC RACT requirements in the combined rulemaking, noting the need to address air emissions from the oil and gas sector. On March 15, 2022, the Board adopted the combined rulemaking as a final-form rulemaking.

Also, on March 15, 2022, the Board submitted the final-form combined rulemaking to IRRC for its consideration. On April 26, 2022, the House ERE Committee sent a letter to IRRC indicating their disapproval of the combined rulemaking due to their interpretation of language in the Pennsylvania Grade Crude Development Act, the act of June 23, 2016 (P.L. 375, No. 52) (58 P.S. §§ 1201—1208), known as Act 52. The letter stated the House ERE Committee's position that Act 52 requires the Board to submit two rulemaking packages — one that applies to unconventional oil and natural gas sources and one that applies to conventional oil and natural gas sources. The House ERE Committee's letter to IRRC initiated the concurrent resolution process under section 7(d) of the RRA (71 P.S. § 745.7(d)) which allows the General Assembly to adopt a resolution that disapproves and permanently bars a final regulation from taking effect.

While the Board disagrees with the House ERE Committee's interpretation of Act 52, to address their concerns and avoid further delay, on May 4, 2022, the Board withdrew the combined rulemaking from IRRC's consideration. The Board then revised the combined rulemaking to apply only to unconventional oil and natural gas sources. On June 14, 2022, the Board adopted the revised Control of VOC Emissions from *Unconventional* Oil and Natural Gas Sources final-form rulemaking (referred to as the unconventional rulemaking). On July 21, 2022, IRRC unanimously approved the unconventional rulemaking.

Given the concerns expressed by the House ERE Committee and other commentators during the regulatory process for the combined rulemaking, the Department developed this separate rulemaking to control VOC emissions from *conventional* oil and natural gas sources.

Final-Omitted Rulemaking

Under section 201 of the CDL (45 P.S. § 1201), an agency is required to provide public notice of its intention to promulgate, amend or repeal administrative regulations. Section 202 of the CDL (45 P.S. § 1202) also requires agencies to review and consider any written comments submitted under section 201 and authorizes agencies to hold public hearings as appropriate. However, under section 204 of the CDL (45 P.S. § 1204), an agency may omit or modify the procedures specified in sections 201 and 202, if:

> The agency for good cause finds (and incorporates the finding and a brief statement of the reasons therefor in the order adopting the administrative regulation or change therein) that the procedures specified in sections 201 and 202 are in the circumstances impracticable, unnecessary, or contrary to the public interest.

Public notice and solicitation of public comments are impracticable, unnecessary, and contrary to the public interest for the amendments included in this final-omitted rulemaking. These procedures are impracticable and unnecessary because the VOC RACT requirements for the conventional oil and natural gas sources covered by this final-omitted rulemaking are identical to those contained in the combined rulemaking. As detailed above, the Board provided a comment period and three public hearings for the combined rulemaking and numerous members of the public provided testimony and submitted comments. Those comments were then used in the development of the final-form combined rulemaking and this final-omitted rulemaking. Therefore, this final-omitted rulemaking was already subject to a notice and comment process when the combined rulemaking was published in the *Pennsylvania Bulletin* on May 23, 2020.

The comment and response document included with this final-omitted rulemaking contains all comments received during the comment period for the combined rulemaking. A public comment period is also contrary to the public interest because it will delay the implementation of the VOC RACT requirements in this final-omitted rulemaking, resulting in the Commonwealth being unable to satisfy the December 16, 2022, sanction deadline, as explained in Section D of this

Preamble under "*Findings of Failure to Submit, sanctions and deadline for action*." If the Board were to provide notice of proposed rulemaking, and an additional public comment period and public hearings, the Commonwealth would be unable to submit this rulemaking to the EPA as a SIP revision by December 16, 2022. The entire rulemaking process in this Commonwealth takes about two years, sometimes longer, from start to finish, and the concurrent resolution process under the RRA further lengthens that timeline. Additional delay of this rulemaking would further harm the public interest because the Commonwealth would lose millions of dollars in Federal highway funding and much needed VOC and methane emission reductions. As a result, the Board finds that the use of the final-omitted rulemaking process is for good cause and that additional public comment in this case is not necessary or in the public interest.

This final-omitted rulemaking will be submitted to the EPA for approval as a revision to the Commonwealth's State Implementation Plan (SIP) following promulgation of the final-form regulation.

This final-omitted rulemaking was adopted by the Board at its meeting on DATE.

A. *Effective Date*

This final-omitted rulemaking will be effective upon notice or publication in the *Pennsylvania Bulletin*.

B. *Contact Persons*

For further information, contact Viren Trivedi, Chief, Division of Permits, Bureau of Air Quality, Rachel Carson State Office Building, P.O. Box 8468, Harrisburg, PA 17105-8468, (717) 783-9476; or Jennie Demjanick, Assistant Counsel, Bureau of Regulatory Counsel, Rachel Carson State Office Building, P.O. Box 8464, Harrisburg, PA 17105-8464, (717) 787-7060. Persons with a disability may use the Pennsylvania Hamilton Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This final-omitted rulemaking is available on the Department of Environmental Protection's (Department) web site at www.dep.pa.gov (select "Public Participation," then "Environmental Quality Board").

C. *Statutory Authority*

This final-omitted rulemaking is authorized under section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth and section 5(a)(8) of the APCA (35 P.S. § 4005(a)(8)), which grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7671q).

D. *Background and Purpose*

The purpose of this final-omitted rulemaking is to implement control measures to reduce VOC emissions from conventional oil and natural gas sources in this Commonwealth. Five air

Conventional Producers Exhibit No. 6

Preamble to Emergency Certified Final-Omitted Conventional VOC Regulation

FINAL-OMITTED RULEMAKING
ENVIRONMENTAL QUALITY BOARD
[25 PA. CODE CH. 129]

Control of VOC Emissions from Conventional Oil and Natural Gas Sources

The Environmental Quality Board (Board) amends Chapter 129 (relating to standards for sources) to read as set forth in Annex A. This final-omitted rulemaking amends §§ 129.131—129.140 to adopt reasonably available control technology (RACT) requirements and RACT emission limitations for conventional oil and natural gas sources of volatile organic compound (VOC) emissions. These sources include natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, reciprocating compressors, centrifugal compressors, fugitive emissions components and storage vessels installed at conventional well sites, gathering and boosting stations and natural gas processing plants, as well as storage vessels in the natural gas transmission and storage segment. The Board adds definitions, acronyms and United States Environmental Protection Agency (EPA) methods to § 129.132 (relating to definitions, acronyms and EPA methods) to support the implementation of the control measures. Notice of proposed rulemaking is omitted under section 204(3) of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. § 1204(3)), known as the Commonwealth Documents Law (CDL). This final-omitted rulemaking is also being submitted as an emergency certified regulation under section 6(d) of the Regulatory Review Act (RRA) (71 P.S. § 745.6(d)).

Rulemaking Background and History

On December 17, 2019, the Board adopted the Control of VOC Emissions from Oil and Natural Gas Sources proposed rulemaking (referred to as the combined rulemaking). The combined rulemaking included VOC RACT requirements for five categories of oil and natural gas sources of VOC emissions in this Commonwealth, including sources used by the unconventional and conventional industries. On May 23, 2020, the combined rulemaking was published for a 66-day comment period at 50 Pa.B. 2633 (May 23, 2020). Three public hearings were held virtually on June 23, 24, and 25, 2020. Over 100 individuals provided verbal testimony. The comment period closed on July 27, 2020. The Board received over 4,500 comments, including comments from the House and Senate Environmental Resources and Energy Committees (ERE Committees), members of the General Assembly and the Independent Regulatory Review Commission (IRRC). The majority of the commentators expressed their support for the VOC RACT requirements in the combined rulemaking, noting the need to address air emissions from the oil and gas sector. On March 15, 2022, the Board adopted the combined rulemaking as a final-form rulemaking.

Also, on March 15, 2022, the Board submitted the final-form combined rulemaking to IRRC for its consideration. On April 26, 2022, the House ERE Committee sent a letter to IRRC indicating their disapproval of the combined rulemaking due to their interpretation of language in the Pennsylvania Grade Crude Development Act, the act of June 23, 2016 (P.L. 375, No. 52) (58 P.S. §§ 1201—1208), known as Act 52. The letter stated the House ERE Committee's position that Act 52 requires the Board to submit two rulemaking packages — one that applies to unconventional oil and natural gas sources and one that applies to conventional oil and natural gas sources. The House ERE Committee's letter to IRRC initiated the concurrent resolution process under section 7(d) of the RRA (71 P.S. § 745.7(d)) which allows the General Assembly to adopt a resolution that disapproves and permanently bars a final regulation from taking effect.

While the Board disagrees with the House ERE Committee's interpretation of Act 52, to address their concerns and avoid further delay, on May 4, 2022, the Board withdrew the combined rulemaking from IRRC's consideration. The Board then revised the combined rulemaking to apply only to unconventional oil and natural gas sources. On June 14, 2022, the Board adopted the revised Control of VOC Emissions from *Unconventional* Oil and Natural Gas Sources final-form rulemaking (referred to as the unconventional rulemaking). On July 21, 2022, IRRC unanimously approved the unconventional rulemaking.

Given the concerns expressed by the House ERE Committee and other commentators during the regulatory process for the combined rulemaking, the Department developed a separate rulemaking to control VOC emissions from *conventional* oil and natural gas sources. At the October 12, 2022, meeting, the Board adopted the "Control of VOC Emissions from Conventional Oil and Natural Gas Sources" final-omitted rulemaking, Regulation #7-579. On November 14, 2022, the House ERE Committee disapproved the previously adopted final-omitted regulation triggering the 14-calendar-day legislative review period under section 5.1(j.2) of the RRA (71 P.S. § 745.5a(j.2)). During that 14-day period, the regulation may not be published in the *Pennsylvania Bulletin*. The 14-day period began after IRRC issued its approval order of Regulation #7-579 on November 17, 2022, and the 2022 legislative session ended on November 30, 2022. Under section 5.1(j.3) of the RRA (71 P.S. § 745.5a(j.3), the legislative review period will therefore run into the 2023 legislative session ensuring that Regulation #7-579 could not be published by the December 16, 2022, sanction deadline.

This final-omitted rulemaking, Regulation #7-580, is identical to the previous final-omitted rulemaking (Regulation #7-579) except it has received an emergency certification of need from the Governor.

Final-Omitted Rulemaking and Emergency Certification of Need

Under section 201 of the CDL (45 P.S. § 1201), an agency is required to provide public notice of its intention to promulgate, amend or repeal administrative regulations. Section 202 of the CDL (45 P.S. § 1202) also requires agencies to review and consider any written comments submitted under section 201 and authorizes agencies to hold public hearings as appropriate. However, under section 204 of the CDL (45 P.S. § 1204), an agency may omit or modify the procedures specified in sections 201 and 202, if:

> The agency for good cause finds (and incorporates the finding and a brief statement of the reasons therefor in the order adopting the administrative regulation or change therein) that the procedures specified in sections 201 and 202 are in the circumstances impracticable, unnecessary, or contrary to the public interest.

Public notice and solicitation of public comments are impracticable, unnecessary, and contrary to the public interest for the amendments included in this final-omitted rulemaking. These procedures are impracticable and unnecessary because the VOC RACT requirements for the conventional oil and natural gas sources covered by this final-omitted rulemaking are identical to those contained in the combined rulemaking. As detailed above, the Board provided a comment period and three public hearings for the combined rulemaking and numerous members of the public provided testimony and submitted comments. Those comments were then used in the development of the final-form combined rulemaking and this final-omitted rulemaking. Therefore, this final-omitted rulemaking was already subject to a notice and comment process when the combined rulemaking was published in the *Pennsylvania Bulletin* on May 23, 2020.

The comment and response document included with this final-omitted rulemaking contains all comments received during the comment period for the combined rulemaking. A public comment period is also contrary to the public interest because it will delay the implementation of the VOC RACT requirements in this final-omitted rulemaking, resulting in the Commonwealth being unable to satisfy the December 16, 2022, sanction deadline, as explained in Section D of this Preamble under "*Findings of Failure to Submit, sanctions and deadline for action*." If the Board were to provide notice of proposed rulemaking, and an additional public comment period and public hearings, the Commonwealth would be unable to submit this rulemaking to the EPA as a SIP revision by December 16, 2022. The entire rulemaking process in this Commonwealth takes about two years, sometimes longer, from start to finish, and the concurrent resolution process under the RRA further lengthens that timeline. Additional delay of this rulemaking would further harm the public interest because the Commonwealth would lose millions of dollars in Federal highway funding and much needed VOC and methane emission reductions. As a result, the Board finds that the use of the final-omitted rulemaking process is for good cause and that additional public comment in this case is not necessary or in the public interest.

This final-omitted rulemaking is also being submitted as an emergency certified regulation. Section 6(d) of the RRA allows an agency to immediately implement a final-omitted regulation when the Governor certifies that promulgation is necessary to respond to an emergency circumstance specified in the RRA. On DATE, 2022, Governor Tom Wolf issued a Certification of Need for Emergency Regulation finding that this final-omitted rulemaking is required to prevent "the need for supplemental or deficiency appropriations of greater than $1,000,000." (71 P.S. § 745.6(d)).

Governor Tom Wolf determined that this emergency certified final-omitted rulemaking is necessary to ensure the Commonwealth complies with the Federal CAA and the APCA. As discussed above, if the Commonwealth does not submit this final-omitted rulemaking to the EPA as a SIP revision by the December 16, 2022, sanction deadline, Federal highway funding will be withheld until the submission is made. For the upcoming fiscal year, Federal highway funds subject to these sanctions are estimated to be in the hundreds of millions of dollars in the nonattainment areas. The Pennsylvania Department of Transportation, the U.S. Department of Transportation Federal Highway Administration and the EPA have identified several projects in the nonattainment areas that would not receive funding and would therefore not be completed or would be subject to delay. Thus, this emergency certified final-omitted rulemaking will be effective upon publication in the *Pennsylvania Bulletin*.

Conventional Producers Exhibit No. 7

Meeting Minutes of the Pennsylvania Grade Crude Development Advisory Council

January 24, 2019

Clarion University

Roll Call

Members present: Chairman Arthur Stewart, A. Bruce Grindle, Senator Scott Hutchinson, Representative Martin Causer, Jeannine Schoenecker, Terry Engelder, Burt Waite, David Ochs, Mark Cline, Richard Parizek, Joseph Thompson, Kurt Klapkowski (for DEP Secretary Patrick McDonnell), Denise Brinley (for DCED Secretary Dennis Davin), Benjamin Jezovnik (for Nicholas Andreycheck), Timothy Vickey (for Representative Ryan Bizzarro)

Call to Order

The January 24, 2019 meeting of the Pennsylvania Grade Crude Development Advisory Council (CDAC) was held in Room 107/108 of Clarion University's Eagle Commons Building in Clarion, PA 16214. The meeting was open to the public and was called to order by Chairman Stewart at 10:07am. Following the call to order, the council recited the pledge of allegiance, and the roll call was performed. To accommodate the guest attendance of the Warren County commissioners, the reports of three committees were rearranged on the meeting agenda to reflect the following order: Legacy Well Committee, Economic Committee, and Produced Water Committee.
Motion to revise the meeting agenda was made by Joe Thompson and seconded by Richard Parizek. Motion carried.
The revised agenda was approved.
Motion to approve the proposed agenda was made by Mark Cline and seconded by Richard Parizek. Motion carried.

Public Comment

None.

Approval of minutes from September 27, 2018 meeting

Chairman Stewart brought the minutes of the September 27, 2018 CDAC meeting to the attention of the Council.
Motion to approve the minutes was made by Mark Cline and seconded by Richard Parizek. Motion carried.

Reports

President's Report

Chairman Stewart introduced Timothy Vickey attending on behalf of Representative Bizzarro and Benjamin Jezovnik attending on behalf of Nicholas Andreycheck.

Chairman Stewart noted that he is beginning to prepare the statutorily mandated report to the Governor's Office, the leaders of each legislative caucus, and the Secretary of the Department of Environmental Protection. The Council agreed that the process for delivering on last year's Annual

Report was sufficient and that the chairman should proceed in the same manner for 2019. Chairman Stewart requested that all relevant committee reports be delivered to him by February 24, 2019. Dr. Engelder noted that he will be delivering remarks later during the meeting that may warrant consideration for inclusion in the Annual Report.

Chairman Stewart recognized the attendance of Representative Kathy Rapp, a member of the House Environmental Resources and Energy Committee.

Legacy Well Committee

David Ochs reported on the outcome of a phone conversation with Scott Dunkelberger, Executive Director of the Commonwealth Financing Authority (CFA), on ways to improve upon the success of the CFA's Orphan and Abandoned Well Plugging Program. An in-person meeting has been established among Mr. Dunkelberger and members of the Legacy Well Committee to further discuss how best to bring this issue to the attention of the CFA. Mr. Ochs described three plugging projects that underscored the timing challenges of leveraging the benefits of the Good Samaritan Act. He noted that projects that stand to benefit from the Good Samaritan Act are likely to incur additional costs than ones that do not because of the time and expenses that go into preparing an application. Chairman Stewart provided an update of a successful well plugging project in which the Pennsylvania Grade Crude Coalition (PGCC) collaborated with the U.S. Forest Service and volunteered their members' services to plug an abandoned well. The Forest Service has proposed using the project as a model for approaching future plugging efforts and to bring positive attention to the industry that is often maligned by environmental groups. Kurt Klapkowski noted that this project is worthy of consideration for a Governor's Award for Environmental Excellence. Chairman Stewart further noted that wells are plugged regularly by industry in the normal course of business, for example, his company is currently seeking to plug up to 20 wells and acknowledged that DEP has been flexible in helping his company arrive at a process for assessing the wells before taking on each one as a plugging responsibility. He questioned if there could be a way to track these wells and apply to them the orphan well designation. Mr. Klapkowski stated that it would be useful to better understand this dynamic and that DEP would like to help communicate to stakeholders the positive steps that are being taken to address the orphan and abandoned well issue. He further noted that DEP may be amenable to exploring ways in which the process for the Good Samaritan designation could be made easier to navigate and timelier. David Clark, President of the PGCC and a member of the public, stated that the U.S. Forest Service has expressed additional interest in continuing well plugging efforts, and they are currently negotiating with the Western Pennsylvania Conservancy to share the cost of future plugging efforts. Mr. Klapkowski reported that DEP is working with PA Department of Conservation and Natural Resources (DCNR) to plug three wells in the Cornplanter State Forest with funds provided by DCNR. The project is slated to be completed during the next fiscal year and if there is money left over upon the conclusion of the project the agencies would be looking to plug additional wells in Oil Creek State Park. Chairman Stewart noted that the anecdotes around well plugging activity will be emphasized in the Annual Report.

Mr. Ochs provided an update of the Oil and Gas Technical Assistance Program workgroup co-chaired by David Hill and DEP Deputy Secretary Scott Perry. The group is discussing possible ways to streamline the well plugging process for well operators to receive more clarity regarding the procedure for plugging wells when unforeseen technical challenges emerge during the plugging operation. They also are discussing discrepancies between Chapter 78 and Act 214 as they relate to plugging wells in coal areas, and DEP Deputy Secretary Scott Perry has requested a legal review within the DEP to explore ways in which the discrepancy may be eliminated. Finally, the group is exploring issues related to how production casings must be cemented when a plugging operation is performed. Mr. Klapkowski noted that a frequently asked questions document related to cementing surface casings for plugging wells is currently under legal review and should be available for release soon.

Mr. Klapkowski reported that a letter has been drafted for the U.S. Coast Guard by DEP's Office of Chief Counsel and will be delivered to Chairman Stewart perhaps as soon as the following week. Mr. Cline noted that resolving the issue may encourage the U.S. EPA to begin plugging wells again in Pennsylvania.

Chairman Stewart suggested that the Legacy Well Committee conduct a comparative review of state funding practices that exist in Ohio for plugging orphan and abandoned wells to glean ways in which those practices may be applied to Pennsylvania to improve the funding opportunities here. Mr. Ochs noted that he has already begun to explore alternative funding opportunities for orphan and abandoned well plugging in Pennsylvania and plans to socialize them with the members of the Legacy Well Committee for discussion.

Produced Water Committee

The Council agreed to deviate slightly from the agenda to accommodate the Warren County commissioners. As such, the Produced Water Committee report was moved to immediately precede the Economic Committee report.

Chairman Stewart introduced Warren County Commissioners Jeff Eggleston and Ben Kafferlin.

Burt Waite provided an update of the work related to the use of brine for road spreading. Since the most recent CDAC meeting of September 27, 2018, the Produced Water Committee has explored the idea of conducting an additional study related to the ecological pathways of brine spread on the road to determine the environmental impacts. A subcommittee of the Produced Water Committee concluded that a brine treatability study – to determine how best to remove the objectionable constituent elements of brine prior to road spreading – rather than an environmental impact study would be most suitable to meet the objectives of the Committee. The Committee met to evaluate the two proposals and was split on whether a treatability study or an environmental impact study was the most appropriate course of action. Given the Committee's goal of retaining road spreading as an option for the use of appropriate brines, it is incumbent upon the members to recommend a study approach that yields the most useful information for DEP to further consider its policy on the issue. Chairman Stewart introduced a study published by DEP in 1996 that evaluated the environmental impacts of brine spreading over the course of four years. The conclusion of the report was that the way to balance the benefits of brine spreading for townships with the potential for environmental harm is by adhering to certain spatial and temporal limitations for brine spreading to reduce the risk of deleterious environmental impacts. While the study does look at the persistence of various heavy metals, it did not evaluate radium which has become a larger concern since its publication. Commissioner Kafferlin explained that a series of constituent outreach efforts have informed the Commissioners about the desire among residents, municipalities, and local businesses to continue the practice of brine spreading on local roads. Because the issue of brine spreading is a county-wide economic development issue, Commissioners Kafferlin and Eggleston are interested in exploring solutions. Commissioner Eggleston noted ongoing discussions at the county level such as repurposing water treatment facilities and developing a regional cooperative to address the issue on a larger scale. He suggested that any additional study would likely carry more weight if it was funded by local and regional partners rather than the oil and gas industry. Chairman Stewart furthered the issue by maintaining that brine spreading will likely continue in 2019 based on cases in which DEP classifies brine water as a commercial product rather than waste; the process of dewasting as an acceptable means to improve the quality of the brine; and co-product determination in which the characteristics of brine are determined to be similar enough to current road-spreading products to be used as such. The Produced Water Committee agreed to continue exploring the issue by undertaking two charges. First, evaluate what DEP would need to obtain the legal authority to reinstate the spreading of untreated brine – this will be done via subcommittee chaired by Dave Ochs. Second, pursue the possibility of funding further research towards a solution for removing objectionable materials from the brine thereby remediating it to a level that can be deemed acceptable by DEP for road spreading – this will be done via subcommittee chaired by Burt Waite.

Mark Cline updated the Council on recent activity related to wastewater treatment plants. He noted that GCI Water Solutions opened their Titusville location in June 2018 and has since been operating successfully. GCI is exploring opportunities for growth in 2019 that include the addition of desalination equipment at the Titusville facility and up to five new facilities throughout western Pennsylvania. The Advance Water Service (AWS) plant in Bradford, PA is currently treating an average of 220 barrels of produced water per day and has been successful in meeting the performance and water quality guidelines for every barrel treated. AWS is currently working to develop a new type of desalination technology that will allow them to treat larger volumes of water and continue to meet the needs of oil field wastewater treatment throughout the northeastern United States.

Mr. Klapkowski noted that discussions are ongoing about possible redundancy among DEP and US EPA regulations and the issue of seismic monitoring.

Economic

Joe Thompson provided a detailed report on oil and natural gas commodity pricing. The advent of unconventional oil and natural gas production has led to the collapse of the price of these commodities. The impact of lower prices, combined with increased cost of doing business for Pennsylvania's conventional industry, has caused many producers to be operating at a loss since 2012 thereby forcing massive layoffs. Ben Jezovnik noted that his company, Ergon Refining, has been servicing many fewer conventional oil producers in the region due, in part, to insufficient volumes of Pennsylvania grade crude available to keep their plant operating at capacity. Jeannine Schoenecker noted that her company, American Refining Group (ARG), is also receiving much less crude from in the region due insufficient supply and the need to keep their plant running at capacity. Refining crude from outside of the region has led to high capital expenditures for ARG as their equipment must be upgraded to refine a different grade crude.

The Council discussed at length the role that education could play in helping residents throughout the state understand the beneficial attributes of the conventional industry on Pennsylvania's economy and its environment. Educative topics discussed include the idea that the conventional industry is sufficiently regulated; it is a clean and sophisticated process; it yields products that are critical to everyday life; it is vital to the economy of western Pennsylvania; it is distinct from the unconventional industry; it is critical to dealing with legacy environmental issues; and it is in dire financial need. The Council agreed that the educational component would be a salient topic for the next CDAC meeting in May 2019.

DCED

Adam Walters of DCED proposed beginning to put presentation collateral that is submitted during the regular course of CDAC business on the shared user site rather than the DCED website to streamline the administrative process. The Council agreed to this approach given that all meeting agendas, minutes, public announcements, and annual reports will continue to be located on the DCED website.

DEP

Mr. Klapkowski reported several issues on which DEP is currently working. He noted that the issue of spill and remediation policies are being considered to explore the possibility of identifying process shortcuts within the realm of bioremediation.

He noted that DEP is working towards coordinating between the Office of Oil and Gas Management and the Bureau of Environmental Cleanup and Brownfields to explore ways in which the two can communicate more consistently about cleanup regulations.

He noted that DEP is exploring subsurface issues regarding wellhead placements in an effort to stop environmental degradation when a well that needs plugged cannot be completed in a timely manner.

He noted that DEP is working with its mining staff on issues related to the interaction between coal mines and natural gas storage fields.

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.

Legislative

Senator Hutchinson reported that the House version of the Conventional Oil and Gas Act is being circulated in the Senate for sponsorship and to determine the best path forward for the legislation.

Regulatory Review

No report.

Old Business

No report.

New Business

Chairman Stewart stated that he would like to begin scheduling and setting the locations of subsequent CDAC meetings at least one year in advance. He proposed alternating locations between Clarion and State College to make travel time relatively equal between all members. Adam will distribute a memo in advance of the next CDAC meeting on May 23 to determine the dates and times of the year’s upcoming meetings.

Terry Engelder presented research he had recently conducted on a legal dispute called Briggs vs. Southwestern in which issues around the interpretation of a legal term known as the rule of capture may affect natural gas producers.

Chairman Stewart noted the potential role of academic literature reviews as a tool for understanding the range of policy items and legal precedents that may be taken up by CDAC for consideration. He asked Mr. Engelder and Mr. Parizek to consider the possibility of exploring what it would take to develop an internship program through Penn State University that would provide students an opportunity to conduct meaningful research on topics germane to CDAC as they arise.

Mr. Cline noted that some of the producers filing waste reports are not submitting them to DEP for cases in which the recipients of the water are not permitted by DEP. He asked that DEP consider moving the statistics for that produced water to their waste report to have a better understanding of where the water is going.

Chairman Stewart thanked the members of Council for their volunteer time spent on meeting preparation and underscored a number of the rewards that their efforts have yielded.

The next CDAC meeting will be held on May 23, 2019.

Motion to adjourn was made by Joe Thompson and seconded by Richard Parizek. Motion carried.

The meeting was adjourned at 3:21pm.

Conventional Producers Exhibit No. 8

Regulatory Analysis Form (Completed by Promulgating Agency) **(All Comments submitted on this regulation will appear on IRRC's website)**	***INDEPENDENT REGULATORY REVIEW COMMISSION***
(1) Agency Environmental Protection	**IRRC Number:**
(2) Agency Number: 7 Identification Number: 544	

(3) PA Code Cite: 25 Pa. Code Chapters 121 and 129

(4) Short Title: Control of VOC Emissions from Oil and Natural Gas Sources

(5) Agency Contacts (List Telephone Number and Email Address):
Primary Contact: Laura Edinger, 783-8727, ledinger@pa.gov
Secondary Contact: Jessica Shirley, 783-8727, jesshirley@pa.gov

(6) Type of Rulemaking (check applicable box):	
☒ Proposed Regulation	☐ Emergency Certification Regulation;
☐ Final Regulation	☐ Certification by the Governor
☐ Final Omitted Regulation	☐ Certification by the Attorney General

(7) Briefly explain the regulation in clear and nontechnical language. (100 words or less)

This proposed rulemaking would add reasonably available control technology (RACT) requirements and RACT emission limitations for oil and natural gas sources of volatile organic compound (VOC) emissions to Chapters 121 (relating to general provisions) and 129 (relating to standards for sources). VOCs are precursors to the formation of ground-level ozone, a public health and welfare hazard. Sources affected by this proposal include storage vessels in all segments except natural gas distribution, natural gas-driven pneumatic controllers, natural gas-driven diaphragm pumps, reciprocating compressors, centrifugal compressors, and fugitive emissions components. While this proposed rulemaking requires VOC emission reductions, methane emissions are also reduced as a co-benefit, because both VOCs and methane are emitted from oil and gas operations. This proposed rulemaking will provide consistency among all oil and natural gas sources in this Commonwealth for monitoring fugitive emissions.

This proposed rulemaking will be submitted to the United States Environmental Protection Agency (EPA) for approval as a revision to the Commonwealth's State Implementation Plan (SIP) following promulgation of the final-form rulemaking.

(8) State the statutory authority for the regulation. Include specific statutory citation.

This proposed rulemaking is authorized under section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth. Section 5(a)(8) of the APCA (35 P.S. § 4005(a)(8)) also grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7671q).

This proposed rulemaking's requirements for storage vessels are more stringent than the proposal offered by Ohio based on the TPY threshold. Ohio is proposing a 2.64 TPY VOC emission limit for reciprocating compressors, however the other requirements are identical to this proposed rulemaking. Ohio is also proposing emission limits for fugitive emissions components of 10.56 TPY VOC at well sites and of 10 TPY VOC at natural gas compressor stations and similar facilities. The frequencies are the same as for this proposed rulemaking, except that well sites are eligible to further reduce the instrument-based inspection frequency to annually after two semiannual inspections having less than 2% of leaking components.

New York's proposal is similar to this proposed rulemaking, except that for reciprocating and centrifugal compressor blowdown vents, the emissions must be routed to a vapor recovery system, a control device, or another technology. Additionally, Maryland's proposal is similar to this proposed rulemaking for instrument-based LDAR, although the repair and certification of the repair is within 30 days; it is not clear if there is an AVO inspection requirement at this time.

Lastly, this proposed rulemaking will provide consistency among all oil and natural gas sources, new and existing, in this Commonwealth for monitoring fugitive emissions components by including monthly AVO inspection requirements and quarterly LDAR inspection requirements. These requirements are consistent with the LDAR requirements specified in the Department's GP-5, GP-5A, and Exemption 38. This proposed rulemaking is also consistent with the 2016 O&G CTG, which many states are using as a template for their existing source regulations. This consistency will ensure that this Commonwealth will not be at a competitive disadvantage.

(13) Will the regulation affect any other regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.

No other regulations are affected by this proposed rulemaking.

(14) 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.)

The Department consulted with the Air Quality Technical Advisory Committee (AQTAC) and the Small Business Compliance Advisory Committee (SBCAC) in the development of this proposed rulemaking. On December 14, 2017, the Department presented concepts to AQTAC on a potential rulemaking incorporating the 2016 O&G CTG recommendations. The Department returned to AQTAC on December 13, 2018 for an informational presentation on a preliminary draft Annex A. This proposed rulemaking was presented for a vote to AQTAC on April 11, 2019 and SBCAC on April 17, 2019. Both committees concurred with the Department's recommendation to move this proposed rulemaking forward to the Board for consideration.

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. On March 21, 2019, the Department provided an informational presentation to the Oil and Gas Technical Advisory Board. The Department also conferred with the Citizens Advisory Council's (CAC) Policy and Regulatory Oversight Committee concerning this proposed rulemaking on May 7, be at times higher or lower for an individual client, as will be the amount of gas savings so that it is possible for an individual client to see a cost benefit. Ultimately, this proposed rulemaking will help facilities conserve the valuable product that they sell which helps offset any cost of this proposed rulemaking. The table in question 23 provides a breakdown of the cost data for the industry.

(16) 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.

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.

Based on the analysis in question 15, approximately 3,929 of the 5,039 owners or operators may meet the definition of small business as defined in Section 3 of the Regulatory Review Act. See 71 P.S. § 745.3. Further analysis is required to determine if any of the affected sources are owned or operated by small businesses.

(17) Identify the financial, economic and social impact of the regulation on individuals, small businesses, businesses and labor communities and other public and private organizations. Evaluate the benefits expected as a result of the regulation.

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 estimates that the cost of complying with this proposed rulemaking would be about $35.3 million per year. However, implementation of the proposed control measures would also potentially save the oil and natural gas industry about $9.9 million per year due to a lower natural gas loss rate during production. This estimate consists of two major categories of data. The first is the cost per year for each piece of equipment or site affected. This number was provided by the EPA in the 2016

O&G CTG. The second is the number of potentially affected facilities, which was obtained from several data sources including the Department's database for oil and gas well production, the Department's air emissions inventory, the eFACTS and AIMS databases, the United States Energy Information Agency's list of natural gas processing plants, and the EPA emissions inventory.

Of the 71,229 conventional wells reporting production, only 303 are above the 15 barrel of oil equivalent per day (boe/day) production threshold as reported in the Department's 2017 oil and gas production database and will have fugitive emissions component requirements. For sources located at a natural gas well site, the anticipated cost to comply with the requirements would be based on the sources present at the site, the applicability of those sources and the type of control used to comply. In the 2016 O&G CTG, the EPA estimates the costs for control of the various sources as follows:

- Implementation of a quarterly LDAR program using OGI costs $4,220 per year resulting in a cost per ton of VOC reduced of $3,453.
- Routing emissions from a natural gas-driven diaphragm pump to a process costs $774 per year resulting in a cost per ton of VOC reduced of $847.
- Replacing a continuous high-bleed natural gas-driven pneumatic controller costs $296 per year resulting in a cost per ton of VOC reduced of $209.
- Routing emissions from a storage vessel to a control device costs $25,194 per year with a cost per ton of VOC reduced of $4,420.

Most of the anticipated costs are due to new regulatory requirements but many of the costs associated with this proposed rulemaking are from common sense practices and controls that operators are already implementing. Some examples include periodic inspections which can prevent releases which in turn prevents environmental damage and significant financial losses for the operator. The Department anticipates there will be areas of cost savings that will occur as a result of this proposed rulemaking as well. In addition, the Department estimates that some small business stationary sources may be below the applicability thresholds. However, affected small businesses may incur minimal cost as a result of this proposed rulemaking. Overall, the Department does not anticipate that this proposed rulemaking will result in any significant adverse impact on small oil and gas operators.

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. Approximately 294 TPY of these emission reductions are due to the additional stringency the Department proposes when compared to the 2016 O&G CTG. These reductions would benefit the health and welfare of the approximately 12.8 million residents and the numerous animals, crops, vegetation and natural areas of this Commonwealth by reducing the amount of ground-level ozone air pollution resulting from these sources.

In addition, this proposed rulemaking is consistent with Governor Wolf's strategy to reduce emissions of methane from the oil and natural gas industry in this Commonwealth. Methane is a potent greenhouse gas with a global warming potential more than 28 times that of carbon dioxide over a 100-year time period, according to the EPA. The EPA has identified methane, the primary component of natural gas, as the second-most prevalent greenhouse gas emitted in the United States from human activities. According to federal estimates, the natural gas and oil industries account for a quarter of United States methane emissions. In addition to climate change impacts, methane and VOC emissions have harmful

The Department plans to educate and assist the public and the regulated community in understanding the proposed requirements and how to comply with them.

(c) A statement of probable effect on impacted small businesses.

Of the 71,229 conventional wells reporting production, only 303 are above the 15 boe/day production threshold as reported in the Department's 2017 oil and gas production database and will have fugitive emissions component requirements. For sources located at a natural gas well site, the anticipated cost to comply with the requirements would be based on the sources present at the site, the applicability of those sources and the type of control used to comply. In the 2016 O&G CTG, the EPA estimates the costs for control of the various sources as follows:

- Implementation of a quarterly LDAR program using OGI costs $4,220 per year resulting in a cost per ton of VOC reduced of $3,453.
- Routing emissions from a natural gas-driven diaphragm pump to a process costs $774 per year resulting in a cost per ton of VOC reduced of $847.
- Replacing a continuous high-bleed natural gas-driven pneumatic controller costs $296 per year resulting in a cost per ton of VOC reduced of $209.
- Routing emissions from a storage vessel to a control device costs $25,194 per year with a cost per ton of VOC reduced of $4,420.

Most of the anticipated costs are due to new regulatory requirements but many of the costs associated with this rule are from what the Department believes to be common sense practices and controls that operators are already implementing. Some examples include periodic inspection which can prevent releases which in turn prevents environmental damage and significant financial losses for the operator. The Department anticipates there will be areas of cost savings that will occur as a result of this proposed rulemaking as well. In addition, the Department estimates most small business stationary sources will be below the applicability thresholds. However, affected small businesses may incur minimal cost as a result of this proposed rulemaking. Overall, the Department does not anticipate that this proposed rulemaking will result in any significant adverse impact on small oil and gas operators.

The Department plans to educate and assist the public and the regulated community in understanding the proposed requirements and how to comply with them. The Department will continue to work with the Department's provider of Small Business Stationary Source Technical and Environmental Compliance Assistance. These services are currently provided by the Environmental Management Assistance Program (EMAP) of the Pennsylvania Small Business Development Centers. The Department has partnered with EMAP to fulfill the Department's obligation to provide confidential technical and compliance assistance to small businesses as required by the APCA, Section 507 of the CAA (42 U.S.C.A. § 7661f) and authorized by the Pennsylvania Small Business and Household Pollution Prevention Program Act (35 P.S. §§ 6029.201—6029.209). In addition to providing one-on-one consulting assistance and on-site assessments, EMAP also operates a toll-free phone line to field questions from this Commonwealth's small businesses, as well as businesses wishing to start up in, or relocate to, Pennsylvania. EMAP operates and maintains a resource-rich environmental assistance website and distributes an electronic newsletter to educate and inform small businesses about a variety of environmental compliance issues.

Conventional Producers Exhibit No. 9

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July 27, 2020

Submitted by e-mail to ecomment@pa.gov
Policy Office
Department of Environmental Protection
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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) disproportionally 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 withdraw[2] 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 dollars[11] (accounting for inflation, that is about $6,620 per ton of VOCs controlled in 2020 dollars[12]). 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/tI/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,

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[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 disproportionally 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 71,000[22] 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 wells[23] 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 disproportionally 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.

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[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 a 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 stochiometric 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 OOOOa[34] or the 2016 CTGs[35] 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

Conventional Producers Exhibit No. 10

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July 27, 2020

Environmental Quality Board
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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 <u>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.</u>" (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 <u>199 conventional wells</u> 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. <u>The Board fails to demonstrate that proposed rule's requirements are RACT for conventional operators under the Clean Air Act.</u>

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 <u>not</u> 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. <u>The proposed rule is an improper exercise of the Board's authority under section 5(a)(1) of the APCA.</u>

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 is 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:

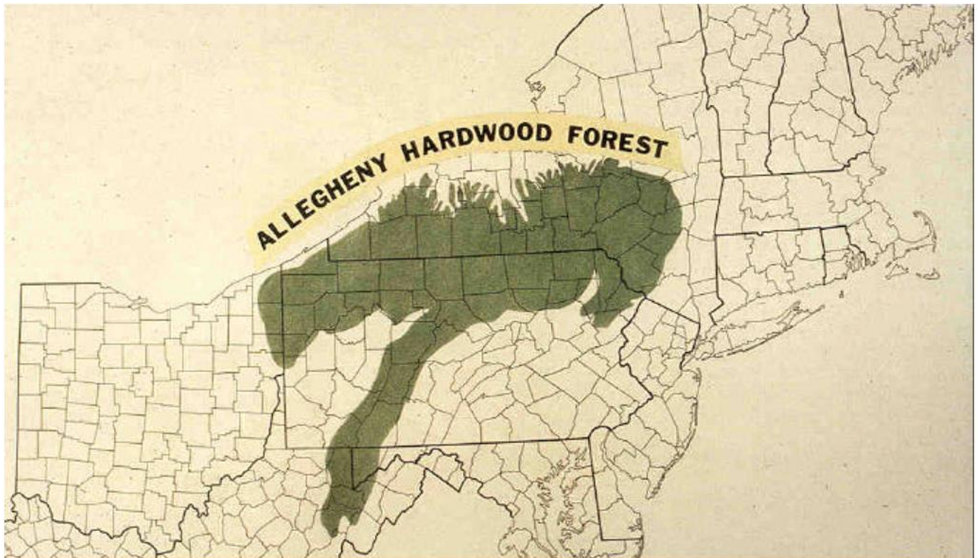
> This Commonwealth is forested over a total of 16.8 million acres, which represents 58% of its land area. Federal, state, and local government hold 5.1 million acres in public ownership, with the remaining 11.7 million acres in private ownership.2 The forest product industry only owns 0.4 million acres 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.



The Allegheny hardwood forest covers approximately 16 million acres of the Allegheny Plateau and Allegheny Mountain sections of Pennsylvania, New York, Maryland, West Virginia, and Ohio.

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 to110 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 Station 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 rato:	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 $1/40^{th}$ 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 $1/40^{th}$ 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 may 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, <u>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.</u>

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,

David Clark

David Clark, President

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

Conventional Producers Exhibit No. 11

Regulatory Analysis Form (Completed by Promulgating Agency) **(All Comments submitted on this regulation will appear on IRRC's website)**	***INDEPENDENT REGULATORY REVIEW COMMISSION***
(1) Agency: Environmental Protection	**IRRC Number: 3256**
(2) Agency Number: 7 Identification Number: 544	

(3) PA Code Cite: 25 Pa. Code Chapters 121 and 129

(4) Short Title: Control of VOC Emissions from Oil and Natural Gas Sources

(5) Agency Contacts (List Telephone Number and Email Address):

Primary Contact: Laura Griffin, 717-783-8727, laurgriffi@pa.gov
Secondary Contact: Jessica Shirley, 717-783-8727, jesshirley@pa.gov

(6) Type of Rulemaking (check applicable box):

☐ Proposed Regulation
☒ Final Regulation
☐ Final Omitted Regulation
☐ Emergency Certification Regulation;
☐ Certification by the Governor
☐ Certification by the Attorney General

(7) Briefly explain the regulation in clear and nontechnical language. (100 words or less)

This final-form rulemaking adds reasonably available control technology (RACT) requirements and RACT emission limitations for oil and natural gas sources of volatile organic compound (VOC) emissions to Chapters 121 and 129 (relating to general provisions; and standards for sources). VOC emissions are precursors to the formation of ground-level ozone, a public health, welfare and environmental hazard. Sources affected by this final-form rulemaking include storage vessels in all segments except natural gas distribution, natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, reciprocating compressors, centrifugal compressors and fugitive emissions components. While this final-form rulemaking requires VOC emission reductions, methane emissions are also reduced as a co-benefit, because both VOCs and methane are emitted from oil and gas operations.

This final-form rulemaking will be submitted to the United States Environmental Protection Agency (EPA) for approval as a revision to the Commonwealth's State Implementation Plan (SIP) following promulgation of the final-form regulation.

(8) State the statutory authority for the regulation. Include specific statutory citation.

This final-form rulemaking is authorized under section 5(a)(1) of the Air Pollution Control Act (APCA) (35 P.S. § 4005(a)(1)), which grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth. Section 5(a)(8) of the APCA (35 P.S. § 4005(a)(8)) also grants the Board the authority to adopt rules and regulations designed to implement the provisions of the Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7671q).

areas. However, the effects of the reduced aesthetic value of trees in heavily visited parks may not be quantifiable. Reducing the concentration of ground-level ozone will help maintain the benefits to this Commonwealth's economy due to tourism.

In sum, adoption and implementation of the VOC emission control measures in this final-form rulemaking for the owners or operators of certain sources in the oil and natural gas industry is reasonably necessary to allow the Commonwealth to continue its progress in attaining and maintaining the public health-based and welfare-based 8-hour ozone NAAQS and to satisfy related CAA requirements. The VOC emission reductions achieved through implementation of the regulatory requirements established in this final-form rulemaking and the associated decrease in formation of ground-level ozone will benefit the health and welfare of the residents of this Commonwealth as well as the health of tourists and visitors, with improved ambient air quality and healthier environments. The decrease in ground-level ozone formation will also benefit farmers, loggers, hunters and outdoor enthusiasts and the numerous animals, crops, vegetation and natural areas of this Commonwealth. The agriculture and timber industries and related businesses will benefit directly from reduced economic losses that result from ozone damage to crops and timber. Likewise, the natural areas and infrastructure within this Commonwealth and downwind states will benefit directly from reduced environmental damage and economic losses due to ground-level ozone.

(11) Are there any provisions that are more stringent than federal standards? If yes, identify the specific provisions and the compelling Pennsylvania interest that demands stronger regulations.

Yes, some provisions of this final-form rulemaking are more stringent than Federal standards. Under Section 4.2(b)(1) of the APCA (35 P.S. § 4004.2(b)(1)), the Board has the authority to adopt control measures that are more stringent than those required by the CAA if the Board determines that it is reasonably necessary for the control measure to exceed minimum CAA requirements for the Commonwealth to achieve or maintain the NAAQS. To the extent that a requirement in this final-form rulemaking is more stringent than the recommendations of the 2016 O&G CTG, the more stringent requirement is reasonably necessary to attain and maintain the health-based and welfare based 8-hour ozone NAAQS in this Commonwealth and to satisfy related CAA requirements.

The control requirements for storage vessels, reciprocating compressors and fugitive emissions components in this final-form rulemaking are more stringent than the recommendations of the 2016 O&G CTG. Based on comments received, the Department performed an updated cost/benefit analysis (2020 reanalysis) which shows that the more stringent standards in this final-form rulemaking are RACT, meaning they are technically and economically feasible. As discussed previously, the Department is obligated to determine what control standards are RACT for sources of VOC emissions in this Commonwealth. In the 2016 O&G CTG,[14] the EPA provided RACT recommendations based on the information reviewed by the EPA at the time. However, as explicitly stated by the EPA in the 2016 O&G CTG, state air pollution control agencies are free to implement other technically-sound approaches that are consistent with the CAA and the EPA's regulations. See 81 FR 74798, 74799. The EPA also further clarified that "the information contained in the CTG document is provided only as guidance" and "this guidance does not change, or substitute for, requirements specified in applicable sections of the CAA or the EPA's regulations; nor is it a regulation itself." *Id.*

[14] See EPA, Control Techniques Guidelines for the Oil and Natural Gas Industry, EPA 453/B-16-001, Office of Air Quality Planning and Standards, October 2016, https://www.epa.gov/sites/default/files/2016-10/documents/2016-ctg-oil-and-gas.pdf, for a detailed description of the sources, VOC emissions, RACT recommendations, available VOC emission control technologies, and costs.

While the EPA will ultimately need to approve the Department's RACT determinations by reviewing and approving the revision to the Commonwealth's SIP, the Department has made the RACT determinations in this final-form rulemaking based on the entirety of information available to the Department, including the 2016 O&G CTG. In the time since the 2016 O&G CTG was issued by the EPA, the Department acquired additional information and current emissions data specific to this Commonwealth that it analyzed to determine the RACT emission limitations and requirements established in this final-form rulemaking. Additionally, due to this Commonwealth's status as a member of the OTR and the 2015 ozone nonattainment areas, the VOC emission reductions achieved by this final-form rulemaking are necessary to attain and maintain compliance with the ozone NAAQS and to fulfill the Commonwealth's obligation under Section 184 of the CAA.

Furthermore, based on analysis of data available to the Department during the development of the proposed rulemaking as well as additional and updated data available during the final-form rulemaking development phase, the Department determined in three cases that RACT requirements more stringent than the recommendations in the 2016 O&G CTG are cost-effective and necessary to continue the Commonwealth's progress in attaining and maintaining the ground-level ozone NAAQS.

To determine whether a specific air pollution control technology is an economically feasible option to be considered as RACT, the Department has used a cost-effectiveness benchmark in terms of annualized costs per ton of VOC emissions removed. The Department adjusted cost benchmarks established in previous RACT rulemakings of $5,500 per ton of VOC emissions removed, by multiplying by the Consumer Price Index differential between 2014 and 2021 to arrive at a benchmark of $6,600 per ton of VOC emissions removed.

Storage vessels

In the first case, the Department established in proposed § 129.123(a)(1)(i)—(vi) (relating to storage vessels) a tiered emissions threshold based on the potential to emit for the affected owners or operators of subject storage vessels to prevent backsliding on the amount of controlled emissions for storage vessels subject to the Department's Air Quality Permit Exemptions 38(b) or 38(c). The tiered emission threshold established in proposed § 129.123(a)(1)(i) and (ii) was the potential to emit 6.0 TPY or greater VOC emissions for a storage vessel installed at a conventional well site or at an unconventional well site before August 10, 2013. The tiered emission threshold established in proposed § 129.123(a)(1)(iii)—(vi) was the potential to emit 2.7 TPY or greater VOC emissions for a storage vessel installed at an unconventional well site on or after August 10, 2013, a storage vessel installed at a gathering and boosting station, a storage vessel installed at a natural gas processing plant and a storage vessel installed at a facility in the natural gas transmission and storage segment.

However, during the development of this final-form rulemaking, the Department performed additional analysis which shows that the 2.7 TPY VOC emission threshold for storage vessels is RACT as it is technically and economically feasible for both potential to emit and actual emissions from all covered storage vessels at both conventional and unconventional well sites. The analysis examined the sensitivity to the initial capital cost of the control device and found that the total cost per ton of VOC reduced is below the RACT benchmark of $6,600/ton reduced. Therefore, a single 2.7 TPY VOC emission threshold is established in § 129.123(a)(1) in this final-form rulemaking that applies to affected owners or operators of storage vessels in all segments except natural gas distribution. The tiered emissions thresholds in proposed § 129.123(a)(1)(i)—(vi) are deleted in this final-form rulemaking.

Reciprocating compressor rod packing replacements

In the second case, the proposed rulemaking included an exemption in § 129.126(d) for the owner or operator of a reciprocating compressor or a centrifugal compressor located at a well site or located at an adjacent well site and servicing more than one well site. However, the Department's additional analysis for this final-form rulemaking shows that it is both technically and economically feasible to require reciprocating compressor rod packing replacements every 26,000 hours of operation or every three years, at the operator's discretion, for reciprocating compressors located at well sites. The analysis showed that the cost-effectiveness of the rod packing replacement is highly sensitive to the emissions factor used to represent emissions from reciprocating compressors. Using the average of several emission factors from the University of Texas at Austin's Emission Factor Improvement Study,[15] the cost per ton of VOC reduced is approximately $6,600 which is consistent with the RACT benchmark. Therefore, the exemption in proposed § 129.126(d) for reciprocating compressors is deleted in this final-form rulemaking, meaning this final-form rulemaking requires affected owners or operators to implement reciprocating compressor rod packing replacements on reciprocating compressors located at well sites. This is a new requirement that was not included in the proposed rulemaking and was not one of the recommendations in the 2016 O&G CTG.

Fugitive emissions components

In the third case, the Department established a requirement in proposed § 129.127(b)(1)(ii)(A) and (B) (relating to fugitive emissions components) that affected owners or operators shall conduct monthly audible, visual, and olfactory (AVO) inspections and quarterly instrument-based leak detection and repair (LDAR) inspections of fugitive emissions components for well sites with at least one well that produces, on average, 15 barrels of oil equivalent (BOE) per day. In proposed § 129.127(b)(2), the Department also established a stepdown provision which enabled affected owners or operators to track the percentage of leaking components at each inspection and if, in two consecutive quarterly inspections, less than 2% of components were leaking emissions, the owner or operator could reduce the quarterly schedule of instrument-based LDAR inspections to semiannual.

This final-form rulemaking deletes the stepdown provisions of proposed § 129.127(b)(2)(i) and (ii). The Department's additional analysis shows that it is both technically and economically feasible for an affected owner or operator to implement instrument-based LDAR inspections at a well site with an average production of 15 BOE or more per day, with the frequency of inspections based on the production from each individual well at the well site. The owner or operator of a well site with an average production of 15 BOE or more per day and with at least one individual well producing 15 BOE or more per day, on average, shall conduct quarterly instrument-based LDAR inspections. The owner or operator of a well site with an average of 15 BOE or more per day and at least one individual well producing 5 BOE or more but less than 15 BOE per day, on average, shall conduct annual instrument-based LDAR inspections. In this final-form rulemaking the Department also included an option for the owner or operator of a well site producing, on average, equal to or greater than 15 BOE per day, and at least one well producing, on average, equal to or greater than 5 BOE per day but less than 15 BOE per day to submit to the Department a request for an exemption from the annual instrument-based LDAR requirement. However, the request must include, among other information, a demonstration that the annual LDAR requirement is not RACT (technically or economically feasible) for the well site.

Reasonable and necessary to implement more stringent than EPA RACT recommendations

In addition to the technically and economically feasible RACT requirements detailed above, the Commonwealth is responsible for ensuring that the 2015 8-hour ozone NAAQS is attained and maintained by

(14) 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.)

The Department consulted with the Air Quality Technical Advisory Committee (AQTAC) and the Small Business Compliance Advisory Committee (SBCAC) in the development of the proposed rulemaking. On December 14, 2017, the Department presented concepts to AQTAC on a potential rulemaking incorporating the 2016 O&G CTG recommendations. The Department returned to AQTAC on December 13, 2018, for an informational presentation on a preliminary draft Annex A. The proposed rulemaking was presented for a vote to AQTAC on April 11, 2019, and SBCAC on April 17, 2019. Both committees concurred with the Department's recommendation to move the proposed rulemaking forward to the Board for consideration.

The Department also conferred with the Citizens Advisory Council's (CAC) Policy and Regulatory Oversight Committee concerning the proposed rulemaking on May 7, 2019. On June 18, 2019, the full CAC concurred with the Department's recommendation to move the proposed rulemaking forward to the Board for consideration.

The Department also met with industry and environmental stakeholders to receive additional input on the proposed rulemaking. On January 24, 2019, the Department updated the Pennsylvania Grade Crude Development Advisory Council on the status of the proposed rulemaking. On March 21, 2019, the Department provided an informational presentation to the Oil and Gas Technical Advisory Board. 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.

The Board adopted the proposed rulemaking at its meeting of December 17, 2019 by an 18 to 1 vote. The proposed rulemaking was published at 50 Pa.B. 2633 (May 23, 2020). Due to requirements to mitigate the spread of the COVID-19 virus, the Board held three virtual public hearings on June 23, 24 and 25, 2020. A 66-day public comment period closed on July 27, 2020. The Board received 4,510 written comments and 121 individuals provided verbal testimony at the virtual public hearings. The written comments included individual letters and petitions with multiple signatories, so the total number of persons expressing interest in the proposed rulemaking was approximately 36,100. The Independent Regulatory Review Commission separately provided comments on the proposed rulemaking. The comments received on the proposed rulemaking are summarized in the Preamble to this final-form rulemaking and are also addressed in a separate Comment and Response Document that accompanies this final-form rulemaking. All comments on the proposed rulemaking were considered and addressed.

This final-form rulemaking was presented to AQTAC on December 9, 2021, the CAC Policy and Regulatory Oversight Committee on January 12, 2022 and the CAC on January 18, 2022, and SBCAC on January 27, 2022.

(15) Identify the types and number of persons, businesses, small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012) and organizations which will be affected by the regulation. How are they affected?

The 2016 O&G CTG listed the following five North American Industry Classification System (NAICS) codes to identify businesses potentially covered by the 2016 O&G CTG. The NAICS is an industry

The Department identified 5,039 client ID numbers for owners or operators of facilities in this Commonwealth using the Department's eFACTS and AIMS databases and the NAICS codes covered by the 2016 O&G CTG. These facilities include approximately 30,648 well sites, 486 gathering and boosting stations, and 15 natural gas processing facilities in this Commonwealth. A single client ID entity may own or operate more than one type of facility and may own or operate multiple facilities of the same facility type. The owners or operators of these facilities are all potentially subject to this final-form rulemaking as they are likely to have air contamination sources subject to this final-form rulemaking.

The Department categorized the 5,039 owners or operators based on their client type in eFACTS. Of the 5,039 owners or operators, the Department determined that 3,783 owners or operators have a "for profit" client type of estate/trust, individual, non-government, partnership-general, partnership-limited, or sole proprietorship. The Department assumed that these 3,783 "for profit" entities are likely a small business. The Department determined that 1,170 of the 5,039 owners or operators have a "for profit" client type of limited liability company, limited liability partnership, non-Pennsylvania corporation, or Pennsylvania corporation. The Department assumed that each of these 1,170 "for profit" entities is not a small business unless it meets the applicable SBA size definition based on the data available. The remaining 86 owners or operators with the client type of association/organization, authority, county, Federal agency, municipality, other (government), school district, or state agency are classified as "not for profit" client types. These types are not considered small businesses.

The Department requested the assistance of the Commonwealth's Small Business Development Center's (SBDC) Environmental Management Assistance Program (EMAP) in reviewing the list of "for profit" 1,170 owners or operators for their small business-size status. The SBDC EMAP searched the Hoover's database and found 117 entries for the 1,170 owners or operators and provided the Hoover's data for these 117 facilities to the Department. The Department reviewed the Hoover's data for these 117 facility owners or operators and determined that 51 facilities meet the definition for small business size for the applicable NAICS code. Based on the above assumptions and analyses, the Department estimates that as many as 3,834 of the 5,039 owners or operators identified may meet the definition of small business as defined in Section 3 of the Regulatory Review Act.

The Department estimates an annual compliance cost of $31.7 million per year for the 5,039 owners or operators and an annual $20.3 million per year in savings due to conserving the natural gas rather than losing it through uncontrolled VOC emissions. See the discussion in the response to Question 17 for how these financial estimates are derived.

The Department estimates that the potentially affected 5,039 Pennsylvania facility owners or operators, including small business-sized owners or operators, could incur an average annual cost of approximately $6,285 per owner or operator. The Department estimates that each owner or operator could accrue an average annual savings from conservation of natural gas, assuming a price of $1.70 per thousand cubic feet (Mcf) of natural gas, of approximately $4,023 per owner or operator. This amounts to a net cost per owner or operator of approximately $2,263.

As an alternative to the average costs per owner or operator cited above, an average cost can be generated using the average cost per facility and multiplying by the number of facilities the owner or operator controls. The Department estimates that, for the 31,149 potentially affected facilities, the average annual cost per facility is approximately $1,017 and the average annual savings from conservation of natural gas is approximately $651. This results in an average net cost per facility of approximately $366.

are identical to the EPA's 2016 O&G CTG recommendation which the EPA has determined to be cost effective.

Fugitive Emissions Components

In the 2016 O&G CTG, the annualized cost in 2012 dollars to conduct annual LDAR inspections at a well site is $1,318, to conduct quarterly LDAR inspections at a well site is $4,220, and to conduct quarterly LDAR inspections at a gathering and boosting station is $25,049. These costs are $1,554, $4,937, and $29,307 in 2021 dollars, respectively. The Department's TSD for GP-5 and GP-5A also contained cost data for implementing LDAR programs, which are more conservative than the annual costs in EPA's 2016 O&G CTG as the costs in the TSD are based on a contractor's quote. The annual cost for implementing an annual LDAR inspection program is $1,681 in 2021 dollars at a well site. The annual cost, in 2021 dollars, for implementing a quarterly LDAR inspection program is $6,723 at a well site and $13,447 for a gathering and boosting station or natural gas processing plant. It should be noted that the estimates for well sites assumed there are 1,000 components to monitor and that for gathering and boosting stations or natural gas processing plants there are 2,000 components to monitor. EPA's assumptions for the number of components to monitor are between 127 and 671 for well sites and 3,091 for gathering and boosting stations or processing plants.

The Department identified a total of 31,149 facilities including well sites, gathering and boosting stations, and natural gas processing plants. The calculation of fugitive emissions before control were based on estimates of the amount of natural gas leaked. The breakdown between the amounts of VOC and methane emissions is calculated using this Commonwealth's natural gas composition ratio of 4.47% VOC and 86.03% methane. The value of natural gas saved is calculated using the assumed cost of $1.70/Mcf of natural gas in 2021 dollars.

There are approximately 37 well sites with no LDAR program currently in place that the Department assumes will be required to implement an annual LDAR program. The total annualized cost is $62,192, reducing VOC emissions by approximately 136 TPY for a total cost per ton of VOC reduced of $1,457. The 136 TPY of the VOC emissions reduction from this requirement is due to the technically and economically feasible RACT determination by the Department that is over and above the reductions from EPA's RACT recommendations.

There are approximately 1,525 well sites with no LDAR program currently in place that the Department assumes will be required to implement a quarterly LDAR program. The total annualized cost is $10,253,276, reducing VOC emissions by approximately 1,163 TPY. The Department has determined this requirement to be cost-effective since the annualized cost is only $6,723 per year. Approximately 291 TPY of the VOC emissions reduction from this requirement is due to the technically and economically feasible RACT determination by the Department that is over and above the reductions from EPA's RACT recommendations.

There are approximately 499 well sites currently required to perform annual LDAR that the Department assumes will be required to implement a quarterly LDAR program. The total annualized cost is $2,516,255, reducing VOC emissions by approximately 314 TPY. The Department has determined this requirement to be cost-effective since the incremental annualized cost is only $5,042 per year. Approximately 79 TPY of the VOC emissions reduction from this requirement is due to the technically and economically feasible RACT determination by the Department that is over and above the reductions from EPA's RACT recommendations.

There are approximately 650 well sites currently required to perform semiannual LDAR that the Department assumes will be required to implement a quarterly LDAR program. The total annualized cost is $2,185,125, reducing VOC emissions by approximately 517 TPY. The Department has determined this requirement to be cost-effective since the incremental annualized cost is only $3,361 per year. Approximately 129 TPY of the distributes an electronic newsletter to educate and inform small businesses about a variety of environmental compliance issues.

(d) A description of any less intrusive or less costly alternative methods of achieving the purpose of the proposed regulation.

There are no less intrusive or less costly alternative regulatory provisions available.

The requirement to adopt and implement RACT requirements is Federally mandated. In accordance with sections 172(c)(1), 182(b)(2)(A) and 184(b)(1)(B) of the CAA, this final-form rulemaking establishes VOC emission limitations and other requirements consistent with the recommendations of the 2016 O&G CTG as RACT for natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, and centrifugal compressors in this Commonwealth. The Department's 2020 reanalysis has determined that the technically and economically feasible requirements for storage vessels, reciprocating compressors at well sites, and fugitive emissions components at well sites are RACT. The owners or operators of affected facilities, whether or not meeting the designation of small business, are required to control VOC emissions to meet the levels established in this final-form rulemaking. The owners or operators of many potentially affected facilities will likely not require additional control measures to comply with the RACT requirements established in this final-form rulemaking, as discussed in the response to Question 24(b).

(25) List any special provisions which have been developed to meet the particular needs of affected groups or persons including, but not limited to, minorities, the elderly, small businesses, and farmers.

No special provisions were developed. In accordance with sections 172(c)(1), 182(b)(2)(A) and 184(b)(1)(B) of the CAA, this final-form rulemaking establishes VOC emission limitations and other requirements consistent with the recommendations of the 2016 O&G CTG as RACT for natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, and centrifugal compressors in this Commonwealth. The Department's 2020 reanalysis has determined that the technically and economically feasible requirements for storage vessels, reciprocating compressors at well sites, and fugitive emissions components at well sites are RACT.

The Department has established a small business assistance program that is available to provide confidential assistance to affected small business-sized owners or operators. The owners or operators of affected oil and natural gas sources, including small business-sized entities, minorities, the elderly, and farmers are subject to the applicable requirements of this final-form rulemaking.

(26) Include a description of any alternative regulatory provisions which have been considered and rejected and a statement that the least burdensome acceptable alternative has been selected.

The Department is required under the CAA to promulgate this final-form rulemaking. No alternative regulatory provisions were considered. This final-form rulemaking is the least burdensome acceptable alternative.

(27) In conducting a regulatory flexibility analysis, explain whether regulatory methods were considered that will minimize any adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), including:

(a) The establishment of less stringent compliance or reporting requirements for small businesses.

Less stringent compliance or reporting requirements are not available exclusively for small businesses. In accordance with sections 172(c)(1), 182(b)(2)(A) and 184(b)(1)(B) of the CAA, this final-form rulemaking establishes VOC emission limitations and other requirements consistent with the recommendations of the 2016 O&G CTG as RACT for natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, and centrifugal compressors in this Commonwealth. The Department's 2020 reanalysis has determined that the technically and economically feasible requirements for storage vessels, reciprocating compressors at well sites, and fugitive emissions components at well sites are RACT. However, in this final-form rulemaking the Department also included an option for the owner or operator of a well site producing, on average, equal to or greater than 15 barrels of oil equivalent per day that also has and at least one well producing, on average, equal to or greater than 5 barrels of oil equivalent per day but less than 15 barrels of oil equivalent per day to submit to the Department a request for an exemption from the annual instrument-based LDAR requirement. The Department assumes that many of the owners or operators that would qualify for this exemption would be a small business. Owners or operators of subject small business-sized VOC emitting facilities will have to comply with the RACT requirements in this final-form rulemaking. The Department has established a small business assistance program that is available to provide confidential assistance to small businesses.

(b) The establishment of less stringent schedules or deadlines for compliance or reporting requirements for small businesses.

As explained in the response to Question 9, this final-form rulemaking is overdue to be submitted to the EPA for approval as a SIP revision. Further delay of implementation is not feasible. The Department notes that compliance dates are established throughout this final-form rulemaking that provide affected owners or operators sufficient time to identify and comply with the applicable requirements when this final-form rulemaking becomes effective upon publication in the *Pennsylvania Bulletin* as a final-form regulation. Additionally, many potentially impacted entities may already be complying with the final-form requirements as a result of implementing best management practices or already implementing instrument-based LDAR inspections. Therefore, less stringent schedules or deadlines for compliance or reporting for small businesses are not incorporated into this final-form rulemaking.

(c) The consolidation or simplification of compliance or reporting requirements for small businesses.

Recordkeeping and reporting requirements are the same for all owners or operators of affected facilities. RACT is Federally mandated. Owners or operators of subject small business-sized VOC emitting facilities will have to comply with the RACT requirements in this final-form rulemaking. The Department has established a small business assistance program that is available to provide confidential assistance to small businesses. Furthermore, for the instrument-based LDAR requirement specifically, in this final-form rulemaking the Department also included an option for the owner or operator of a well site producing, on average, equal to or greater than 15 barrels of oil equivalent per day that also has and at least one well producing, on average, equal to or greater than 5 barrels of oil equivalent per day but less than 15 barrels of oil equivalent per day to submit to the Department a request for an exemption. The Department assumes that many of the owners or operators that would qualify for this exemption would be a small business.

(d) The establishment of performance standards for small businesses to replace design or operational standards required in the regulation.

No special provisions are included for small businesses. The standards included in this final-form rulemaking are consistent with the recommendations of the 2016 O&G CTG for natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, and centrifugal compressors in this

Commonwealth. The Department's 2020 reanalysis has determined that the technically and economically feasible requirements for storage vessels, reciprocating compressors at well sites, and fugitive emissions components at well sites are RACT. There are no provisions which allow a different type of standard for small businesses. The Department has established a small business assistance program that is available to provide confidential assistance to small businesses.

(e) The exemption of small businesses from all or any part of the requirements contained in the regulation.

This final-form rulemaking does not exempt owners or operators of affected small businesses. There are no provisions which allow a different type of standard for small businesses; however, it is likely that many small business owners or operators will have facilities below the applicability thresholds. See the response to Question 16 for more information. The Department has established a small business assistance program that is available to provide confidential assistance to small businesses. See the response to question 24(c) for more information on the small business impact.

(28) If data is the basis for this regulation, please provide a description of the data, explain in detail how the data was obtained, and how it meets the acceptability standard for empirical, replicable and testable data that is supported by documentation, statistics, reports, studies or research. Please submit data or supporting materials with the regulatory package. If the material exceeds 50 pages, please provide it in a searchable electronic format or provide a list of citations and internet links that, where possible, can be accessed in a searchable format in lieu of the actual material. If other data was considered but not used, please explain why that data was determined not to be acceptable.

The Department reviews its own ambient air quality ozone monitoring data for purposes of reporting to the EPA to establish attainment and maintenance of the NAAQS for all areas of this Commonwealth as discussed in the response to Question 9. The Commonwealth's Ambient Air Monitoring Network is operated in accordance with all network design, siting, monitoring and quality assurance requirements set forth in 40 CFR Part 58 (relating to ambient air quality surveillance).

The EPA's data and analysis in the Control Techniques Guidelines for the Oil and Natural Gas Industry, EPA-453/B-16-001, October 2016 is located at https://www.epa.gov/sites/default/files/2016-10/documents/2016-ctg-oil-and-gas.pdf

This final-form rulemaking uses some of the cost data and justifications provided in GP-5, GP-5A, and Exemption 38, which can be found in the TSD located at http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=19616&DocName=02%20FINAL%20TECHNICAL%20SUPPORT%20DOCUMENT%20FOR%20GP-5%20(2700-PM-BAQ0267)%20AND%20GP-5A%20(2700-PM-BAQ0268).PDF%20%20%3Cspan%20style%3D%22color%3Agreen%3B%22%3E%3C%2Fspan%3E%20%3Cspan%20style%3D%22color%3Ablue%3B%22%3E%3C%2Fspan%3E

Information on oil and natural gas well production for the 2020 reporting year can be found at the Department's Oil and Gas Well Production Report, located at https://www.depgreenport.state.pa.us/ReportExtracts/OG/OilGasWellProdReport

Air emissions for the 2020 reporting year can be found at the Department's Air Emissions Report, located at http://cedatareporting.pa.gov/reports/powerbi/Public/DEP/AQ/PBI/Air_Emissions_Report

Conventional Producers Exhibit No. 12

Bureau of Air Quality

COMMENT AND RESPONSE DOCUMENT

Control of VOC Emissions from Oil and Natural Gas Sources

25 Pa. Code Chapters 121 and 129
50 Pa.B. 2633 (May 23, 2020)
Environmental Quality Board Regulation #7-544
(Independent Regulatory Review Commission #3256)

informed that this regulation would not apply to their sector of the industry. IRRC asks the Board to clarify which provisions, if any, apply to the conventional oil and gas industry.

Response:

In response, the Board explains that this final-form rulemaking controls harmful VOC emissions from five specific categories of air emission sources as required by the EPA. These source categories include storage vessels in all segments of oil and gas operations except natural gas distribution, natural gas-driven continuous bleed pneumatic controllers, natural gas-driven diaphragm pumps, reciprocating and centrifugal compressors, and fugitive emissions components. These sources are the same pieces of equipment irrespective of whether they are used by owners or operators in the unconventional or conventional oil and natural gas industry. Some conventional owners or operators may need to implement control measures if they own or operate regulated sources emitting above the VOC emission threshold. The EPA did not distinguish between unconventional and conventional sources of emissions in the 2016 O&G CTG, and the Department does not have the authority to exempt sources from Federal requirements.

To clarify regarding the conventional industry's understanding of the applicability of this final-form rulemaking, while not required to consult with CDAC, at the January 24, 2019 CDAC meeting, the Department reported to CDAC that this rulemaking was in the proposed stage. The Department also noted that most of the potentially regulated sources used by owners or operators in the conventional oil and gas industry would likely be exempted from implementing the proposed rulemaking control measures, because these sources tend to emit VOC emissions at levels well below the proposed thresholds requiring VOC emission controls. However, the Department did not state that this rulemaking would not apply to sources used in the conventional oil and gas industry.

In terms of whether this final-form rulemaking applies to the conventional industry, based on information from the Department's oil and gas production database, the Department estimates that approximately 95 of the 27,193 conventional well sites may need to implement a new LDAR program because those well sites produce at least 15 BOE per day with at least one well producing a minimum of 5 BOE. Based on the Department's record of when conventional well sites were drilled, the Department assumes that 67 conventional well sites are subject to Subpart OOOOa, which applies to oil and natural gas facilities constructed, modified or reconstructed after September 18, 2015. Of the approximately 95 conventional well sites that may be required to implement a new LDAR program under this final-form rulemaking, 31 would have to meet the annual instrument-based inspection requirement and the remaining 64 would have to meet the quarterly instrument-based inspection requirement.

To the extent that this final-form rulemaking applies to the conventional industry, the owners or operators are required to confirm this applicability determination.

8. Comment: IRRC notes that the EQB states in Section 9 of the RAF that "Even though a finalized withdrawal of the 2016 O&G CTG would relieve the state of the requirement to address RACT for existing oil and natural gas sources, the Department is still obligated to reduce ozone and VOC emissions to ensure that the NAAQS is attained and maintained under section 110 of the Clean Air Act (CAA). 42 U.S.C.A. § 7410." Commentators have asked the EQB to consider

Conventional Producers Exhibit No. 13

July 28, 2022

VIA EMAIL to kramamurth@state.pa.us
Krishnan Ramamurthy, Deputy Secretary, Waste, Air, Remediation and Radiation
Department of Environmental Protection
Rachel Carson State Office Building
12th Floor, P.O. Box 8468
Harrisburg, PA 17105

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,

Daniel J. Weaver
President & Exec. Dir.
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David Clark
President
PGCC
P.O. Box 211
Warren, PA 16365
admin@pagcoc.org

cc: David Hill, Chair, Pennsylvania Grade Crude Development Advisory Council
davidhilldrilling@yahoo.com

Adam Walters, Liaison, Department of Community and Economic Development
adwalters@pa.gov

Conventional Producers Exhibit No. 14

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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Conventional Producers Exhibit No. 15

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Air Quality

DOCUMENT NUMBER:	275-2101-003
TITLE:	Air Quality Permit Exemptions
EFFECTIVE DATES:	July 26, 2003, August 10, 2013 for Category No. 33 and Category No. 38 Exemptions
AUTHORITY:	Act of January 8, 1960, P.L. (1959) 2119, No 787, as amended, known as The Air Pollution Control Act, (35 P.S. § 4001 et seq.)
POLICY:	Plan Approval and Operating Permit Exemptions
PURPOSE:	The document provides criteria for sources and physical changes to sources determined to be eligible for permitting exemptions as sources of minor significance.
APPLICABILITY:	Staff/Regulated Public
DISCLAIMER:	The policies and procedures outlined in this guidance document are intended to supplement existing requirements. Nothing in the policies or procedures shall affect applicable statutory or regulatory requirements. The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of the Department to give these rules that weight or deference. This document establishes the framework for the exercise of DEP's administration discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.
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2. A concentration of 2.5% methane or less using a gas leak detector;

3. No visible leak image when using an optical gas imaging camera;

4. No bubbling at leak interface using a soap solution bubble test specified in Method 21. A procedure based on the formation of bubbles in a soap solution that is sprayed on a potential leak source may be used for those sources that do not have continuously moving parts and that do not have a surface temperature greater than the boiling point or less than the freezing point of the soap solution; or

5. Any other method approved by the Department.

B. Leaks, repair methods and repair delays are to be recorded and maintained for five years. If a gas leak detector is used, a leak is to be detected by placing the probe inlet at the surface of a component. The Department may grant an extension for leak detection deadlines or repairs upon written request from the owner or operator of the facility documenting the justification for the requested extension.

34. Sources of particulate matter (not subject to NESHAPs, NSPS, PSD, or major source requirements) that are controlled by a baghouse, have an emission rate which meets the limits of Chapter 123, and are exhausted indoors and cannot be bypassed to exhaust to the outdoor atmosphere. These sources should not emit more than 0.12 tpy of lead, one tpy of a single HAP or 2.5 tpy of a combination of HAPs. Multiple sources within this category may be exempt from plan approval requirements.

35. Sources emitting inert gases only, such as argon, helium, krypton, neon, and xenon; pure constituents of air such as nitrogen, oxygen, or carbon dioxide; or, methane or ethane.

36. Source(s) qualifying under § 127.449 as de minimis emission increases.

37. Sources that exhaust to a filter/baghouse and have particulate loading (before control) below limits specified in Chapter 123.

38. Oil and gas exploration, development, and production facilities and associated equipment and operations meeting the following provisions:

a. Conventional wells, wellheads and all other associated equipment. A conventional well is any well that does not meet the definition of unconventional gas well in 58 PA.C.S § 3203.

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Air Quality

DOCUMENT NUMBER:	275-2101-003
TITLE:	Air Quality Permit Exemptions
EFFECTIVE DATE:	August 8, 2018
AUTHORITY:	July 26, 2003 August 10, 2013 for Category Nos. 33 and 38 August 8, 2018 for Category Nos. 35 and 38 under § 127.14(a)(8) and Category No. 40 under the Trivial Activities; and removed Category No. 16 under § 127.14(a)(9)
POLICY:	Plan Approval and Operating Permit Exemptions
PURPOSE:	This document provides criteria for sources and physical changes to sources determined to be eligible for permitting exemptions as sources of minor significance.
APPLICABILITY:	Staff/Regulated Public
DISCLAIMER:	The policies and procedures outlined in this guidance document are intended to supplement existing requirements. Nothing in these policies or procedures will affect regulatory requirements. The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of the Department to give these rules that weight or deference. This document establishes the framework, within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.
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records should be maintained for five years. If a gas leak detector is used, a leak is to be detected by placing the probe inlet at the surface of a component. The Department may grant an extension for leak detection deadlines or repairs upon written request from the owner or operator of the facility documenting the justification for the requested extension.

34. Sources of particulate matter (not subject to NESHAPs, NSPS, PSD, or major source requirements) that are controlled by a baghouse have an emission rate which meets the limits of Chapter 123 and are exhausted indoors and cannot be bypassed to exhaust to the outdoor atmosphere. These sources should not emit more than 0.12 tpy of lead, one tpy of a single HAP or 2.5 tpy of a combination of HAPs. Multiple sources within this category may be exempt from plan approval requirements.

35. Sources emitting inert gases only, such as argon (Ar), helium (He), krypton (Kr), neon (Ne), and xenon (Xe); pure constituents of air such as nitrogen (N_2), oxygen (O_2), or carbon dioxide (CO_2), or ethane (C_2H_6).

36. Source(s) qualifying under § 127.449 as de minimis emission increases.

37. Sources that exhaust to a filter/baghouse and have particulate loading (before control) below limits specified in Chapter 123.

38(a). Existing oil and gas exploration, development, and production facilities and associated equipment and operations constructed prior to August 10, 2013. Any modification of an existing source or construction of a new source after August 8, 2018, is subject to 38(c).

38(b). Existing oil and gas exploration, development, and production facilities and associated equipment and operations authorized to operate under exemption criteria dated August 10, 2013, but prior to August 8, 2018, of this exemption criteria that meet any of the following provisions (a – d). This exemption criteria also apply to a well that was spudded (drilled) on or after August 10, 2013, but before August 8, 2018, and an air contamination source that was constructed, reconstructed or modified on or after August 10, 2013, but before August 8, 2018:

a. Site preparation, well drilling, hydraulic fracturing, completion, and work-over activities for conventional and unconventional well sites.

b. Conventional wells, wellheads and all other associated equipment. A conventional well is any well that does not meet the definition of unconventional gas well in 58 PA.C.S § 3203.

c. Non-road engines as defined in 40 CFR § 89.2.

d. Unconventional wells, wellheads, and associated equipment, provided the applicable exemption criteria specified in subparagraphs i, ii, iii, iv and v are met.

i. Within 60 days after the well is put into production, and annually thereafter, the owner/operator will perform a leak detection and repair (LDAR) program that includes either the use of an optical gas imaging camera, Method 21 of 40 CFR Part 60, or other leak detection monitoring devices approved by the Department.

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Air Quality

DOCUMENT NUMBER:	275-2101-003
TITLE:	Air Quality Permit Exemptions
EFFECTIVE DATE:	July 1, 2021
AUTHORITY:	Air Pollution Control Act (APCA), 35 P.S. § 4001 et seq. and 25 Pa. Code § 127.14 (relating to exemptions)
POLICY:	Plan Approval and Operating Permit Exemptions
PURPOSE:	This document provides criteria for sources and physical changes to sources determined to be eligible for permitting exemptions as sources of minor significance.
APPLICABILITY:	Staff/Regulated Public
DISCLAIMER:	The policies and procedures outlined in this guidance are intended to supplement existing requirements. Nothing in the policies or procedures shall affect regulatory requirements. The policies and procedures herein are not an adjudication or a regulation. DEP does not intend to give this guidance that weight or deference. This document establishes the framework, within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.
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than the boiling point or less than the freezing point of the soap solution; or

5. Any other method approved by the Department.

B. Leaks, repair methods, and repair delays are to be recorded and those records should be maintained for five years. If a gas leak detector is used, a leak is to be detected by placing the probe inlet at the surface of a component. The Department may grant an extension for leak detection deadlines or repairs upon written request from the owner or operator of the facility documenting the justification for the requested extension.

34. Sources of particulate matter (not subject to NESHAPs, NSPS, PSD, or major source requirements) that are controlled by a baghouse, have an emission rate which meets the limits of Chapter 123, and are exhausted indoors and cannot be bypassed to exhaust to the outdoor atmosphere. These sources should not emit more than 1000 lbs/yr of a single HAP or one tpy of a combination of HAPs. The HAPs may not contain Polychlorinated Biphenyls (PCBs), Chromium (Cr), Mercury (Hg), Lead (Pb), Polycyclic Organic Matter (POM), Dioxins or Furans. Multiple sources within this category may be exempt from plan approval requirements.

35. Sources emitting only inert gases [such as argon (Ar), helium (He), krypton (Kr), neon (Ne), and xenon (Xe)], nitrogen (N_2), oxygen (O_2), carbon dioxide (CO_2), or ethane (C_2H_6).

36. Source(s) qualifying under § 127.449 as de minimis emission increases.

37. Reserved. See Category 46.

38(a). Existing oil and gas exploration, development, and production facilities and associated equipment and operations constructed prior to August 10, 2013. Any modification of an existing source or construction of a new source after August 8, 2018, is subject to 38(c).

38(b). Existing oil and gas exploration, development, and production facilities and associated equipment and operations authorized to operate under exemption criteria dated August 10, 2013, but prior to August 8, 2018, of this exemption criteria that meet any of the following provisions (a – d). This exemption criteria also apply to a well that was spudded (drilled) on or after August 10, 2013, but before August 8, 2018, and an air contamination source that was constructed, reconstructed or modified on or after August 10, 2013, but before August 8, 2018:

a. Site preparation, well drilling, hydraulic fracturing, completion, and work-over activities for conventional and unconventional well sites.

b. Conventional wells, wellheads, and all other associated equipment. A conventional well is any well that does not meet the definition of unconventional gas well in 58 PA.C.S § 3203.

c. Non-road engines as defined in 40 CFR § 89.2.

Conventional Producers Exhibit No. 16

Plan Approval and Operating Permit Exemptions

The Proposed Exemption Category Nos. 33 and 38

Air Quality Technical Advisory Committee

February 14, 2013

Proposed Exemption List

- DEP has authority to determine sources or classes of sources that could be exempted from the permitting requirements in accordance with Section 127.14.
- The entire permit exemption list revisions were proposed on Feb. 26, 2011.
- DEP is re-proposing exemption criteria for oil and gas exploration, development, production facilities & associated equipment (Category No.38); and proposing exemption criteria for compressed natural gas fueling stations (Category No.33).
- Comments must be submitted to DEP by March 19, 2013.

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Oil and Gas Exploration, Development, Production Facilities (Exemption List, Category)

Importantly, this is only an exemption from permitting and not from effectively controlling emissions from a well pad. By implementation of these measures required by the criteria, VOC and HAP emissions will be controlled to levels that are equal to or better than New Source Performance Standards (NSPS) and Best Available Technology levels. Exemption criteria include monitoring requirements better than NSPS.

Oil and Gas Exploration, Development, Production Facilities (Exemption List, Category)

- Although a source may be exempt from permit requirements, it is subject to all applicable state and federal regulations such as 25 Pa. Code Article III and federal requirements such as NSPS and NESHAPs.

- Sources not meeting the exemption requirements may submit a Request for Determination (RFD) form to DEP. If the RFD is not approved, a plan approval application should be submitted.

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Federal NSPS Subpart OOOO

- Promulgated by EPA for the Oil and Gas Sector on Aug. 16, 2012.
- Regulates emissions of volatile organic compounds (VOC) from the Oil and Gas Industry including natural gas wells and storage tanks.
- After Jan. 1, 2015, natural gas wells that are hydraulically fractured must employ reduced emission completion (Green Completion) technology.
- Does not include Leak Detection and Repair (LDAR) requirements for the wellheads.

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Unconventional and Conventional Wells (Category No. 38)

- An unconventional wellhead and associated equipment can be permitted using a Plan Approval or be exempted from permitting provided it meets the criteria specified in Category #38 of the Permit exemption list.

- Inherently low emitting conventional wellheads and associated equipment will be exempted without any specific conditions consistent with current practice.

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Storage Vessels/Tanks Exemption and Control (Category No. 38)

- EPA's final NSPS Subpart OOOO rules require the owner or operator to reduce VOC emissions by 95 % if VOCs emissions from each storage vessel is above six tpy.

- The proposed exemption requires the owner or operator to reduce VOC emissions by 95% if aggregated VOCs emissions from storage vessels/storage tanks are above 2.7 tpy.

VOCs and HAPs Exemption Criteria (Category No. 38)

- Sources emitting VOCs emissions are exempted if the combined uncontrolled VOC emissions at a facility are less than 2.7 tons on a 12-month rolling basis.

- If the VOCs include HAPs, combined HAP emissions must be less than 1000 lbs. of a single HAP or one ton of a combination of HAPs in any consecutive 12-month period.

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Flare Exemption Criteria (Category No. 38)

Flares are exempted from the permitting requirements if following are met:

- Flare used at a wellhead that is subject to 40 CFR Part 60 Subpart OOOO requirements. Enclosed flares are not required.
- Flares used at exploration wells drilled to determine whether oil and/or gas exists.
- Enclosed flares used for other operations at a wellhead or facility.

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Flare Exemption Criteria

(Category No. 38)

Flares are exempted from the permitting requirements if following are met:

- Unenclosed flares used for repair, rework or re-completion at a wellhead.
- Flare operations required for emergency or safety purposes provided DEP is notified within 24 hours.

NOx Exemption Criteria (Category No. 38)

- EPA's NSPS Subpart OOOO rules does not address NOx emissions from engines.
- The proposed exemption requires a permit if all engines, except non-road engines, that emit combined NOx emissions of more than 100 lbs/hr, 1000 lbs/day, 2.75 tons per ozone season and 6.6 tpy on a 12-month rolling basis.
- States are precluded from establishing emission standards for non-road engines as defined in 40 CFR Part 89.

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Leak Detection and Repair Requirements (Category No. 38)

- Leak detection and repair (LDAR) requirements for the entire wellhead and associated equipment rather than just storage vessels/storage tanks

- Emissions for safety reasons or prevention of gas migration, from equipment designed to vent such as pneumatic controllers or to protect well integrity are not considered leaks.

Leak Detection and Repair Requirements (Category No. 38)

- The owner or operator shall conduct leak detection within 60 days after the completion of the well using forward looking Infrared (FLIR), a gas leak detector as previously defined or any other DEP-approved monitoring device or process.

- After initial evaluation, leak detection shall be conducted on an annual basis.

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Leak Detection and Repair Requirements (Category No. 38)

- If a leak is detected, the owner or operator of the facility shall quantify and repair the leak to operate with no detectable organic emissions consistent with 40 CFR Part 60 Subpart OOOO, or be less than a concentration of 2.5% methane as expeditiously as practicable, but no later than thirty (30) days after the leak is detected.
- DEP may grant an extension upon request for LDAR deadlines.

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Leak Detection and Repair Requirements (Category No. 38)

- LDAR will ensure that necessary maintenance is performed to minimize fugitive VOC and methane emissions from the entire well pad on a continuing basis.

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Compressed Natural Gas

(Category No. 33)

Exemption for retail gasoline dispensing facilities and similar vehicle-fueling operations at industrial plant sites if following are met:

- Compressed natural gas dispensing facilities must emit combined NOx emissions from engines at a facility <100 lbs/hr, 1000 lbs/day, 2.75 tons per ozone season and 6.6 tons per year on a 12-month rolling basis.

Compressed Natural Gas (Category No. 33)

Exemption for retail gasoline dispensing facilities and similar vehicle-fueling operations at industrial plant sites if following are met:

- Sources emitting VOCs emissions at a facility are exempted if combined uncontrolled VOC emissions at a facility <2.7 tons on a 12-month rolling basis.
- If the VOCs include HAPs, combined HAP emissions must be <1000 lbs of a single HAP or one ton of a combination of HAPs in any consecutive 12-month period.

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CNG Leak Detection Exemption Criteria (Category No. 33)

- The owner or operator shall use forward looking infrared ("FLIR") detection, a gas leak detector capable of reading methane concentrations in air of 0% to 5% with an accuracy of +/- 0.2% or any other leak detection monitoring device or process approved by DEP for the detection of leaks on an annual basis.

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CNG Leak Detection Exemption Criteria (Category No. 33)

- If a leak is detected, the owner or operator of the facility shall quantify and repair the leak to operate with less than a concentration of 2.5% methane as expeditiously as practicable, but no later than thirty (30) days after the leak is detected.
- DEP may grant an extension upon request for LDAR deadlines.
- Leaks and the repairs must be recorded.

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Questions?

CERTIFICATE OF COMPLIANCE
WITH PUBLIC ACCESS POLICY

I certify that this filing complies with the provisions of the Public Access Policy of the Unified Judicial System of Pennsylvania: Case Records of the Appellate and Trial Courts that require filing confidential information and documents differently than non-confidential information and documents.

Respectfully Submitted,

/s/ Jean M. Mosites_______________
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CERTIFICATE OF SERVICE

I hereby certify that on this date, I have caused a true and correct copy of the foregoing Petition for Review to be served upon the following persons via certified mail:

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December 5, 2022

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