

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY**

COMMENT AND RESPONSE DOCUMENT (FOR PUBLIC COMMENTS)

DRAFT AIR QUALITY PLAN APPROVAL

**ADELPHIA GATEWAY, LLC
MARCUS HOOK COMPRESSOR STATION
PLAN APPROVAL NO. 23-0225**

April 18, 2019

PUBLIC COMMENTATORS

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The Department of Environmental Protection (DEP) has prepared these responses to public comments on the draft Air Quality Plan Approval (No. 23-0225) for Adelphia Gateway, LLC¹ (Adelphia) for its proposed Marcus Hook compressor station facility (hereinafter referred to as “the facility”).²

DEP published notice of the public comment period in the *Pennsylvania Bulletin* on November 3, 2018. Adelphia published notice of the public comment period in the *Delaware County Daily Times* on November 9 and 11–12, 2018. DEP held a public hearing on the draft Plan Approval on December 4, 2018, at the Lower Chichester Township Municipal Building, 1410 Market Street, Linwood, PA 19061.

DEP appreciates all the comments submitted and the concerns expressed. However, DEP responses are limited to comments received on or before the close of the public comment period on December 14, 2018.

The comments are organized by topic, with the number(s) in brackets at the end of each topic corresponding to the respective public commentator(s). For certain topics, more specific comments are indicated under the topic. In cases where multiple public commentators had either the same or complementary comments, to provide sufficient context for certain comments, or to make certain comments more concise, DEP has listed general comments instead of direct quotes. Responses that reference conditions from the draft Plan Approval are consistent with the section designations and condition numbering contained therein.

General Concerns

1. Emissions and environmental impact [1, 4]

Comment A.: “To permit construction and operation of the proposed compressor stations will contribute to ground ozone level increase.”

Response A.: DEP has determined that the potential-to-emit for nitrogen oxides (NO_x) and volatile organic compounds (VOCs) from the proposed facility would not exceed any of the major facility thresholds for the Southeast Pennsylvania air basin, or cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS). As NO_x and VOC are the precursors for ground level ozone formation, it has been determined that the proposed facility will not cause or result in significant impacts on ozone concentration at near the ground level.

Comment B.: “Does DEP know emission rate of the smog-forming compounds from compressor station operation?”

Comment C.: “The emission calculations in DEP draft Plan Approval memo were partly based on Adelphia’s estimate. The estimated facility-wide VOC emissions by DEP is 23.49 tons per year, very close to the Title V threshold level. DEP should conduct its own emission evaluation.”

Response B.–C.: Based on the facility design capacity, equipment specifications, and the natural gas chemical composition, DEP used the following emission factors to calculate NO_x and VOC emissions for each emission source during the draft Plan Approval technical review as follows:

- Engines: emission factors provided by manufacturers or the design specifications
- Engine crank case: emission factors provided by manufacturers
- Control devices: removal efficiencies provided by manufacturer or specifications

¹ The application was originally submitted with the company name as “Adelphia Pipeline Company, LLC.” However, in its comments on the draft Air Quality Plan Approval, Adelphia indicated that the company name should be revised to “Adelphia Gateway, LLC.”

² The company comments and DEP responses appear in a separate Comment and Response Document.

- **Pigging operation:** the calculation method(s) specified in DEP’s General Plan Approval and/or General Operating Permit BAQ-GPA/GP-5 (GP-5), pipeline layout and sizing, and pigging operation frequency
- **Leak and fugitive:** emission factors from AP-42, Volume I, Fifth Edition, facility-wide quarterly inspections, and pipeline design
- **Compressor seal leaks:** manufacturer’s specifications and maintenance plan

It should be noted that DEP employed many operational data in the calculations, which were provided by Adelphia, such as throughput capacity, pipeline layout, and their maintenance plans. DEP and Adelphia used similar methods and emission factors to calculate the facility-wide VOC emissions, and resulted in similar VOC emission estimates, which is approximately 23.5 tons per year.

Both NO_x and VOCs are smog-forming compounds. The facility-wide NO_x and VOC emissions and respective calculations are presented in the DEP’s technical review memo for the Air Quality Plan Approval.

Comment D. “Regarding greenhouse gas emissions (GHG), the estimated potential emissions of 34,000 tons per year is equivalent of 7,391 car’s emissions. It is concerned that the operation of Marcus Hook Compressor Station may significantly impact air quality in this heavy industrial (overburdened) neighboring area.”

Response D. This concern is addressed in FERC’s EA (pages 119 [first full paragraph], 132 [last paragraph], 155 [last paragraph]–156 [first paragraph], and 169–172 [section B.10.10]).

2. Public Health [1, 4, 8–9]

Comment A. “Adelphia has stated that this proposed Compressor station will have emissions up to 32-mile radius. I live well within the 32 miles radius. The American Lung Association released its “State of the Air 2018” report this week and gave Delaware County a “F” grade for ozone pollution. Compressor stations generate large amounts of emissions of harmful VOC’s, NO_x, HAP’s, Carbon monoxide and methane. Other chemical released by these compressor stations in the air include, benzene, formaldehyde, and ethane which have been all linked to increased Cancer rates. We cannot afford to add any more of these harmful emissions to this area that already has an “F” grade. For the above reasons I oppose the construction of this compressor Station.”

Comment B. “Air pollutant emissions originated from the proposed natural gas compressor stations will have serious health impact on citizens in this neighborhood.”

Comment C. “My greatest concern is the release of air pollutants i.e. VOCs, nitrogen oxides, formaldehyde, and benzene which can have very deleterious effects on the health of the residents living in these densely populated areas. These stations which run 24/7 are quite noisy and will disrupt the surrounding neighborhood. They can also be associated with unpleasant odors.”

Response A.–C. There are several other compressor stations located at major facilities within the Southeast Pennsylvania air basin. Citizen complaints to DEP regarding the operation of these facilities have been minimal and sporadic, with none received in the past 2 years. In addition, no health impacts relating to these facilities have been reported to DEP.

While the pollutants specified in Comments A. and C. would be emitted as combustion gases from the proposed compressor engines, engine of the proposed Cummins emergency generator set, and/or as fugitive emissions from other compressor station equipment, DEP has determined that the potentials to emit these pollutants from the proposed facility do not exceed any of the major facility thresholds for the Southeast Pennsylvania air basin.

Moreover, as indicated in FERC’s EA (pages 111 [last paragraph], 112 [first paragraph], 128–130 [first paragraph], 132 [first full paragraph], and 169 [third full paragraph]), the results of air quality modeling analyses Adelphia performed for the proposed project indicate that the combined total of background and project-related emissions do not cause or contribute to a violation of the NAAQS, as incorporated by reference into Pennsylvania’s regulations at 25 Pa. Code § 131.2, or result in significant impacts on air quality or human health. [Primary and secondary NAAQS are defined in section 109(b)(1)–(2) of the Clean Air Act (CAA), respectively.

The primary NAAQS is designed to protect public health and includes consideration of sensitive populations. The secondary NAAQS is designed to protect public welfare, including “effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate.”]

DEP’s authority is limited to ensuring that companies comply with all applicable federal and state regulations and requirements for proposed or actual sources of air contaminant emissions. Anything beyond this is beyond DEP’s Air Quality purview.

3. Safety [1, 3, 5]

Comment A.: “As state representative for the 161st Legislative District in Delaware County, I have serious concern over the Adelphia Gateway LLC’s proposal for a natural gas compressor station in Marcus Hook Lower Chichester as this project would have impact on air quality. The safety of the residents who live near this proposed compressor station must be put first during all deliberations of this project.”

Comment B.: “NJR and Adelphia should employ trained building construction workers, who have served state registered apprenticeship programs and are regularly safety-certified, for the construction of Adelphia Marcus Hook compressor station.”

Response A.–B.: Safety concerns regarding the potential for accidents/emergencies at the proposed facility/site are addressed in FERC’s EA (pages 142 [first full paragraph], 144–145 [section B.9.3, first paragraph], and 147–152 [sections B.9.6–B.9.8]), and are beyond DEP’s Air Quality purview and the scope of the Air Quality Plan Approval.

4. Public Information and Public Right [1–2]

Comment A.: “Public should have access to any data and information regarding the construction and operation of the compressor station.”

Response A.: In general, the public is always welcome to contact the Records Management Section of DEP at 484.250.5910 to make an appointment for an informal file review of any non-confidential DEP records, including those associated with the draft Air Quality Plan Approval for the proposed facility. However, due to the substantial public interest concerning the proposed project and the Air Quality Plan Approval, DEP created a webpage (accessible at <https://www.dep.pa.gov/About/Regional/SoutheastRegion/Community%20Information/Pages/Adelphia-Gateway-.aspx>) to house and share materials and updates relating to the project, including links to the Federal Energy Regulatory Commission (FERC) docket and Adelphia project page, and electronic versions of the Air Quality Plan Approval applications, draft Air Quality Plan Approvals, associated technical review memos, and public hearing transcripts for the facility and the Quakertown compressor station and metering stations facility.

Comment B.: “DEP should ensure that Pennsylvanians have opportunity to comment on proposal of this project and potential impact to public health.”

Response B.: In accordance with 25 Pa. Code § 127.44, DEP published in the *Pennsylvania Bulletin* a notice of receipt and intent to issue for the Plan Approval. A 30-day comment period, from the date of publication, was provided for the submission of comments. Furthermore, a public hearing was held on December 4, 2018, to gather additional comments and concerns.

In accordance with 25 Pa. Code § 127.43a - Municipal Notification, Adelphia notified the local municipality and county where the proposed facility will be located in Lower Chichester Township as required by Section 1905-A of the Administrative Code of 1929.

5. Operation and Monitoring [2]

Comment A. “Adelphia should consider fence-line monitoring and alert system (for HAPs and VOC) as a measure to detect leaks and to protect the public. Before the event of system blowdowns, Adelphia should notify neighbors, schools, and other sensitive populations.”

Response A. DEP’s authority is limited to ensuring that companies comply with all applicable federal and state regulations and requirements for proposed or actual sources of air contaminant emissions. Currently, there are no federal or state regulations that require mandatory fenceline monitoring. Therefore, DEP cannot require Adelphia to install fenceline monitors.

Comment B. “Adelphia should conduct pipeline inspection more frequently than the proposed schedule (every five to seven years).”

Response B. Concerns regarding pipeline integrity for the proposed project are addressed in FERC’s EA (pages 142–144 [sections B.9.1–B.9.2], 144–145 [section B.9.3, first paragraph], and 145–147 [section B.9.4]), and are beyond DEP’s Air Quality purview and the scope of the Air Quality Plan Approval.

6. Environmental Justice Area [2]

Comment A. “Lower Chichester Township abuts Chester Township, an Environmental Justice area, while Marcus Hook Compressor Station itself would not be in Chester, the prevailing winds would bring any emissions directly into Chester.”

Response A. The proposed Marcus Hook Compressor Station will be constructed in Lower Chichester Township. Lower Chichester Township is not an environmental Justice area. It is bordered by Marcus Hook Borough, Trainer Borough, and Upper Chichester Township. Chester Township is an Environmental Justice area.

Air Quality Monitoring Reports, in the FERC’s Adelphia Project (Appendix 9-B Part 1, Page 3-4, Figure 3-2), shows that the wind direction in Marcus Hook area from the air modeling analysis (conducted by Adelphia) is approximately 80% in south/west direction (or towards Upper Chichester Township).

7. Electric Compressor vs. Natural Gas-driven Compressor [2, 9]

Comment A. “Adelphia should select electric driven compressors for the proposed compressor station as natural gas driven compressors emit air pollutants.”

Comment B. “The use of electricity-driven stations would allay some of my concerns regarding air pollution related health issues.”

Response A.–B. This concern is addressed in FERC’s EA (pages 186–187 [section B.6.3]), and is beyond DEP’s Air Quality purview and the scope of the Air Quality Plan Approval.

Comment C. Adelphia should incorporate EPA Natural Gas STAR Emission Reduction program recommendations into operation of the compressor station.

Response C. This concern is addressed in FERC’s EA (pages 127 [second paragraph] and 132 [first paragraph]) and the Air Quality Plan Approval application (page 16 [Table 4-5]).³

³ DEP identified conflicting statements between FERC’s EA (page 127: “Adelphia ... has expressed intent to ... recapture and recycle gas normally vented at compressor stations through the use of recovery piping.”) and the Air Quality Plan Approval application (under *Reducing Emissions When Taking Compressors Off-Line*: “[T]he current design of the station does not allow for recycling of engine blowdowns.”) on the recycling of blowdowns. DEP discussed this issue with Adelphia, which Adelphia addressed in the e-mail mentioned in DEP’s response to General Concern 4 (under Comments H.–K./Condition Request #1).

8. Plan Approval (PA) Application [1–2]

Comment A: “DEP should deny this application until all environmental, health, safety, and EPA STAR issues are addressed.”

Comment B: “It is reckless to permit construction and operation of the proposed natural gas compressor stations.”

Response A-B: Adelphia Gateway must comply with the emission limitations, monitoring, recordkeeping and work practice requirements in Air Quality Plan Approval during construction and operation of the proposed sources. These requirements were given to protect public health, welfare and the environment from any emissions that may impose health risks. Concerns regarding EPA Natural Gas STAR Emission Reduction program recommendations and safety issues associated with Natural Gas compressor station are beyond DEP’s Air Quality purview and the scope of the Air Quality Plan Approval.

General Comments in Support

1. The proposed pipeline project will benefit Pennsylvania and Greater Philadelphia [6, 10–11, 13–16]

Comment A: “This project will deliver affordable, abundant energy using existing infrastructure, revitalizing brownfield locations, and minimizing community and environmental impact. Adelphia Gateway will be at 100 percent capacity as soon as it is in service because the consumer demand for low-cost, clean-burning natural gas is already here in southeastern Pennsylvania.”

Comment B: “The need for affordable clean-burning natural gas has been demonstrated by support from end users such as our Chester mill facility, where Kimberly-Clark will transform its co-generation power plant from a coal-fired one into one fueled by natural gas delivered by Adelphia Gateway. Pipeline buildout—and the supporting infrastructure such as compressor stations necessary for pipelines to operate safely and properly—is making this economic and environmental revitalization of a local manufacturing site possible.”

Comment C: “The Adelphia Gateway project can help us reach our national goals to continue as a global leader in natural gas production and help to establish our energy independence from regions of the world that manipulate energy prices and threaten our national security.”

Comment D: The proposed project will increase infrastructure capacity in the region to help meet ever-increasing demand.

Comment E: The proposed project will lower natural gas market prices in the Greater Philadelphia region (which, as part of “the Mid-Atlantic and Northeast continue to pay prices above the national average for natural gas because the region lacks an adequate pipeline network that could carry gas downstream to end users”).

Comment F: The proposed project will provide economic benefits (more than \$16 million in savings over the first 15 years for industrial natural gas customers, and \$402 million in savings for residential customers) and help protect lower- and fixed-income households.

Comment G: The proposed project will support regional businesses in the manufacturing industry by boosting their ability to remain competitive, as well as surrounding communities through businesses investing energy savings in economic development, additional jobs, and higher salaries.

Comment H: “As a member of Laborers Local 413 I and many members of the Delaware County Building Trades Unions have worked on projects like this for over 75 Years. It will provide livable wage jobs for members and residents of Marcus Hook and Delaware County. It will also bring opportunities for local businesses and permanent jobs to this region.”

Response: DEP appreciates the comments, though must note that they have no bearing on DEP’s review of the Plan Approval application.

2. Compressor stations are safe and well-regulated [11, 14–16]

Comment A: “These safe and well-regulated facilities must comply with standards established by both [FERC] and the U.S. Department of Transportation (USDOT). They are remotely controlled and monitored 24 hours a day, 7 days a week, by highly skilled technicians, operators and gas control specialists. The planned compressor stations for Adelphia Gateway utilize a thick-walled structure to reduce residual sound and will comply with FERC’s regulations for noise transmission. ... In addition, the facility is equipped with air quality controls that keep emissions well below federal limits.”

Comment B: “[T]hese highly regulated facilities must adhere to strict industry standards, including installing noise-reduction features and limiting emissions. ... These sites must be engineered, constructed, operated and maintained in accordance with [PHMSA] standards, and they are frequently inspected. Adelphia Gateway's proposed compressor station is no different, and it has been reviewed for strict safety and environmental standard adherence so it can exist harmoniously with the surrounding community.”

Response: DEP appreciates the comments.

Comments Relating to Article 1, Section 27, of the Pennsylvania Constitution [5, 7]

1. **“The Pennsylvania Constitution guarantees our right to clean air and water. We've seen other pipeline projects jeopardize the drinking water of nearby residents. We also know that Delaware County already has air quality issues - the county was given an ‘F’ by the American Lung Association in its 2018 ‘State of the Air’ report. Now is not the time to do anything locally that will further degrade the quality of our air.”**
2. **“If the DEP approves this plan, then it will double-down on the poor air quality in my native Philadelphia and Delaware County (where I current work and reside with my family). Further, the DEP would violate its own mission and the Pennsylvania Constitution by denying citizens the right to clean air, in this case.”**

Response: DEP reviewed the Air Quality Plan Approval application for the air quality emissions associated with the operation and maintenance of the proposed compressor station and existing and proposed metering stations. Based on this review, DEP has determined that Adelphia Gateway, LLC (Adelphia) has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining an air quality Plan Approval required for the proposed project. DEP reached this determination only after an extensive iterative process with Adelphia, where DEP ultimately determined that the application and supporting materials submitted by Adelphia and its consultants adequately addressed the comments and deficiencies raised by DEP and satisfied all applicable legal requirements for issuance, including those enumerated by the commentator referring to Article I, Section 27, of the Pennsylvania Constitution. These requirements, the application submissions by Adelphia, DEP’s thorough review process, as well as the project-specific terms and conditions of the Air Quality Plan Approval, satisfy Article I, Section 27, of the Pennsylvania Constitution.

DEP reviewed the air quality Plan Approval application in accordance with 25 Pa. Code, Chapter 127, regulations, and based on that review, DEP has determined that Adelphia has satisfactorily demonstrated compliance with the regulatory requirements contained therein, including those pertaining to emissions, control technologies, and impacts to the National Ambient Air Quality Standards (NAAQS) and other air quality resources. As part of its application for Certificate of Public Convenience and Necessity to the Federal Energy Regulatory Commission (FERC), Adelphia conducted air quality impact modeling for the proposed project, which is not required by the Commonwealth for the Air Quality Plan Approval application for the proposed project. The air quality impact modeling demonstrated that the emissions from the proposed project would not cause any degradation to the attainment with the NAAQS. Moreover, Adelphia has confirmed that it will “implement recycling of the blowdown volumes where possible such as recycling the gas into fuel gas.” Lastly, whereas other natural gas compressor station facilities in the area are major sources of air pollution, the Air Quality Plan Approval will require Adelphia to maintain air quality emissions from the proposed project below major source

thresholds (as proposed by Adelphia in its Air Quality Plan Approval application), which will minimize the diminution of the local and regional air quality.

DEP conducted a comprehensive environmental evaluation of the proposed project and has concluded that the application and Air Quality Plan Approval satisfy the regulatory requirements and Article 1, Section 27, of the Pennsylvania Constitution.

Comments Relating to DEP's Fulfillment of Its Mission [1, 8]

1. **"It is DEP's mission to protect our air, water and land from pollution in order to provide for the health and safety of all its citizens. I urge the DEP to fulfill its' mission to protect our communities and deny this permit which will further jeopardize our health and safety."**
2. **"It is the DEP's mission to protect our air, water and land from pollution in order to provide for the health and safety of all of its citizens. I urge the DEP to fulfill its mission to protect our community and deny this permit."**
3. **"DEP your role is to "protect the air, water and environment for the community". DEP must deny this permit to protect the citizens from these harmful emissions, pollution and health risks."**

Response: DEP reviewed the Air Quality Plan Approval application for the air quality emissions associated with the operation and maintenance of the proposed compressor station and existing and proposed metering stations. Based on this review, DEP has determined that Adelphia Gateway, LLC (Adelphia) has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining an air quality Plan Approval required for the proposed project. DEP reached this determination only after an extensive iterative process with Adelphia, where DEP ultimately determined that the application and supporting materials submitted by Adelphia and its consultants adequately addressed the comments and deficiencies raised by DEP and satisfied all applicable legal requirements for issuance.

DEP reviewed the air quality Plan Approval application in accordance with 25 Pa. Code, Chapter 127, regulations, and based on that review, DEP has determined that Adelphia has satisfactorily demonstrated compliance with the regulatory requirements contained therein, including those pertaining to emissions, control technologies, and impacts to the National Ambient Air Quality Standards (NAAQS) and other air quality resources. As part of its application for Certificate of Public Convenience and Necessity to the Federal Energy Regulatory Commission (FERC), Adelphia conducted air quality impact modeling for the proposed project, which is not required by the Commonwealth for the Air Quality Plan Approval application for the proposed project. The air quality impact modeling demonstrated that the emissions from the proposed project would not cause any degradation to the attainment with the NAAQS. Moreover, Adelphia has confirmed that it will "implement recycling of the blowdown volumes where possible such as recycling the gas into fuel gas." Lastly, whereas other natural gas compressor station facilities in the area are major sources of air pollution, the Air Quality Plan Approval will require Adelphia to maintain air quality emissions from the proposed project below major source thresholds (as proposed by Adelphia in its Air Quality Plan Approval application), which will minimize the diminution of the local and regional air quality.

