



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

Bureau of Air Quality

**PROPOSED REPEAL OF
GASOLINE VOLATILITY REQUIREMENTS**

25 Pa. Code Chapter 121
and Chapter 126, Subchapter C
47 Pa.B. 1157 (February 25, 2017)
Environmental Quality Board Regulation #7-529
(Independent Regulatory Review Commission #3162)

Comment and Response Document

Proposed Repeal of Gasoline Volatility Requirements

On February 25, 2017, the Environmental Quality Board (Board, EQB) published a notice in the *Pennsylvania Bulletin* (Pa.B.) (47 Pa.B. 1157) of public hearings and a written comment period on the proposed rulemaking to amend Title 25 of the *Pennsylvania Code* (Pa. Code), Chapters 121 and 126 (relating to general provisions; and motor vehicle and fuels programs). The proposed rulemaking would have amended Chapter 121 to delete four terms and definitions from § 121.1 (relating to definitions) and rescinded Chapter 126, Subchapter C (relating to gasoline volatility requirements) as codified at §§ 126.301—126.303 (relating to compliant fuel requirement; recordkeeping and reporting; and compliance and test methods). Chapter 126, Subchapter C was promulgated on November 1, 1997 (27 Pa.B. 5601), and established requirements for gasoline with a Reid vapor pressure (RVP) of 7.8 pounds per square inch (psi) or less (low RVP gasoline) to be sold or transferred into or within the Pittsburgh-Beaver Valley Area between May 1 and September 15 of each year. The U.S. Environmental Protection Agency (EPA) published a notice of direct final rulemaking on June 8, 1998 (63 FR 31116), approving Chapter 126, Subchapter C as a revision to the Commonwealth's State Implementation Plan (SIP). The requirements were codified in the Code of Federal Regulations (CFR) at 40 CFR 52.2020—52.2063 (Subpart NN – Pennsylvania), effective July 23, 1998, as a Federally-enforceable control measure to attain and maintain the 1-hour Ozone National Ambient Air Quality Standards (NAAQS) in the Pittsburgh-Beaver Valley Area to protect the public health and welfare. The Pittsburgh-Beaver Valley Area includes Allegheny, Armstrong, Beaver, Butler, Fayette, Washington, and Westmoreland Counties.

The Pennsylvania General Assembly added section 4(18.3) to the Pennsylvania Air Pollution Control Act (APCA) in the act of May 14, 2014 (P.L. 674, No. 50) (Act 50). Act 50 was effective May 14, 2014, and amended the APCA to require the Department and the Board to:

Within sixty (60) days of the effective date of this clause, initiate the process of amending the State implementation plan. Upon approval of a revision which demonstrates continued compliance with Federal national ambient air quality standards through utilization of commensurate emission reductions by the EPA, the board shall promulgate regulations to repeal the provisions of 25 Pa. Code Ch. 126 Subch. C (relating to gasoline volatility requirements).

The Senate Co-Sponsorship Memorandum for Senate Bill 1037, dated June 5, 2013, indicates that Act 50 was proposed to address the price differential between low RVP gasoline and conventional gasoline in the Pittsburgh-Beaver Valley Area, cited by the Legislative sponsors as being as much as a 10-to-15 cents per gallon (cpg) price difference between the two fuels.

The proposed rulemaking was designed to address the Legislative mandate to the Board to promulgate regulations to rescind Chapter 126, Subchapter C. The Commonwealth is required to ensure that the rescission of Chapter 126, Subchapter C complies with section 110(l) of the Clean Air Act (CAA) (42 U.S.C.A. § 7410(l)) (Non-Interference Clause). The Non-Interference Clause prohibits the EPA Administrator from approving a SIP revision if the revision would interfere with any applicable requirement concerning attainment of a NAAQS or reasonable

further progress in attaining a NAAQS, or any other applicable requirement of the CAA. The Department intends to demonstrate noninterference to the EPA through the use of “commensurate emission reductions,” as mandated by Act 50.

Public Comment Period and Public Hearings

The public comment period opened on February 25, 2017, and closed on May 1, 2017. Three public hearings were held on the proposed rulemaking as follows:

March 28, 2017 1:00 pm	Department of Environmental Protection Southwest Regional Office Waterfront Conference Rooms A and B 400 Waterfront Drive Pittsburgh, PA 15222
March 29, 2017 1:00 pm	Department of Environmental Protection Southeast Regional Office Delaware and Schuylkill Conference Rooms 2 East Main Street Norristown, PA 19401
March 30, 2017 1:00 pm	Department of Environmental Protection Rachel Carson State Office Building Conference Room 105 400 Market Street Harrisburg, PA 17105

Comments and Responses

This document summarizes the written comments received from the public during the public comment period. Members of the Pennsylvania House of Representatives submitted written comments. The Independent Regulatory Review Commission (IRRC) submitted written comments following the public comment period, which are summarized at the beginning of the comments portion of this document. Responses are provided for all comments. No testimony was received during the public hearings. Each comment is listed with an identifying commentator number. A list of the commentators, including name and affiliation, can be found below.

Copies of all comments received are posted on the IRRC website at <http://www.irrc.state.pa.us>. Search by IRRC # 3162 or Regulation # 7-529.

Table of Commentators to the Environmental Quality Board

ID	Name/Address	Submitted One-Page Summary for distribution to EQB	Provided Testimony	Requested Copy of Final Rulemaking following EQB Action
1	William Brethauer Prospect, PA			
2	Barbara Richards Freedom, PA			
3	John Stewart III Clinton, PA			
4	Julie Grimm Rochester, PA			
5	Betty Heim Rochester, PA			
6	Kenneth R. Pingatore Conway, PA			
7	Joseph DiCicco Aliquippa, PA			
8	Jason L. Mengel Buckeye Partners, L.P. 9999 Hamilton Blvd. Five TEK Park Breinigsville, PA 18031			
9	Edward M. Dougherty Sunoco, LLC 3801 West Chester Pike Ellis Preserve Newtown Square, PA 19073			
10	John Baillie GASP 1133 South Braddock Ave Suite 1A Pittsburgh, PA 15218			

11	Rep. Dave Reed 62 nd Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
12	Rep. Mark Mustio 44 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
13	Rep. George Dunbar 56 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
14	Rep. Matthew Dowling 51 st Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
15	Rep. Donald 'Bud' Cook 49 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
16	Rep. Aaron Bernstine 10 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
17	Rep. Daryl Metcalfe 12 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
18	Rep. Cris Dush 66 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
19	Rep. Jeff Pyle 60 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			

20	Rep. Jesse Topper 78 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
21	Rep. Donna Oberlander 63 rd Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
22	Rep. Eric Nelson 57 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
23	Rep. R. Lee James 64 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
24	Rep. John Maher 40 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
25	Rep. Jason Ortitay 46 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
26	Rep. Tedd Nesbit 8 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
27	Rep. Judith Ward 80 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
28	Rep. Rick Saccone 39 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			

29	Rep. Parke Wentling 17 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
30	Rep. Brad Roae 6 th Legislative District PA House of Representatives PO Box 202062 Harrisburg, PA 17120			
31	David Sumner Independent Regulatory Review Commission (IRRC) 333 Market Street, 14 th Floor Harrisburg, PA 17101			

COMMENTS AND RESPONSES

Comments of the Independent Regulatory Review Commission (IRRC)

IRRC provided the following comments to the Board on the proposed rulemaking for Gasoline Volatility Requirements:

Act 50 amended the Air Pollution Control Act (35 P.S. § 4001—4106) to require the Department of Environmental Protection to:

Within sixty (60) days of the effective date of this clause, initiate the process of amending the State implementation plan. Upon approval of a revision which demonstrates continued compliance with Federal national ambient air quality standards through utilization of commensurate emission reductions by the Environmental Protection Agency, the board shall promulgate regulations to repeal the provisions of 25 Pa. Code Ch. 126 Subch. C (relating to gasoline volatility requirements). 35 P.S. § 4004(18.3).

This proposed rulemaking implements Act 50 by deleting Chapter 126, Subchapter C and four related definitions from § 121.1, relating to definitions.

The Preamble to this proposal states that if the rulemaking is published as a final-form rulemaking, it will be submitted to the Environmental Protection Agency (EPA) for approval as a revision to the Commonwealth’s State Implementation Plan (SIP). The Board’s plan for implementation of Act 50 would appear to conflict with the legislative directive to promulgate the required regulations after approval of revisions to the Commonwealth’s SIP by EPA.

Why is EQB proceeding with this proposal prior to securing approval of the Commonwealth’s SIP revisions from EPA? How is this plan for implementation consistent

with the intent of the General Assembly? If this proposal is published as a final-form rulemaking and the EPA does not approve revisions to the Commonwealth's SIP, would the health, safety and welfare of the citizens of the Commonwealth be adequately protected? In the Preamble to the final-form rulemaking, we ask the Board to provide an explanation for its implementation plan and why it believes it is consistent with Act 50.

Consistency with the Intent of the General Assembly

1. Comment: IRRC asked why the Board is proceeding with this proposal prior to securing approval of the Commonwealth's SIP revisions from the EPA and further asked how this plan for implementation is consistent with the intent of the General Assembly. (31)

Response: The proposed rulemaking to rescind Chapter 126, Subchapter C attempted to satisfy both the intent of the General Assembly and the policy in place in EPA Region 3 at the time in order to accomplish the two substantive requirements of Act 50: repealing the regulation and demonstrating commensurate emission reductions. Prior to a recent decision by EPA Region 5, which includes oversight of the state of Ohio, relating to Ohio's repeal of its low RVP gasoline volatility regulation, it was the policy of EPA to not approve the removal of a regulation from a state's SIP unless the regulation had first been repealed at the state level and then submitted as a revision to the state's SIP. In Ohio, rather than repealing its low RVP gasoline volatility regulation, Ohio amended its regulation to make it no longer effective upon approval by EPA Region 5 of a SIP revision removing the provisions from Ohio's SIP. The Department discussed this decision with EPA Region 3 and, with the concurrence of EPA Region 3, recommended using Ohio's approach in this final-form rulemaking. The final-form rulemaking adds language to § 126.301 that will make Chapter 126, Subchapter C no longer applicable to the Pittsburgh-Beaver Valley Area upon the effective date of approval by the EPA of the removal, suspension, or replacement of Chapter 126, Subchapter C as a part of the Commonwealth's SIP.

The Department is separately preparing to submit a Non-Interference Demonstration SIP revision to the EPA. This revision will show continued compliance with the applicable NAAQS and protection of the public health and welfare through the use of commensurate emission reductions to offset the slight increases in VOC and NO_x emissions that will likely result in the near term from removing Chapter 126, Subchapter C as a Federally enforceable control measure from the SIP and making Chapter 126, Subchapter C no longer effective in this Commonwealth. This Non-Interference Demonstration SIP revision will include a request for the EPA to remove Chapter 126, Subchapter C from the Commonwealth's Federally approved SIP.

The coordination of this final-form rulemaking and the Non-Interference Demonstration SIP submittal to the EPA will allow the regulated industry and affected citizens to benefit immediately upon EPA's approval of the Non-Interference Demonstration SIP, which is consistent with the goals of the General Assembly in Act 50.

Protection of the Public Health, Safety, and Welfare

2. Comment: IRRC asked if the health, safety, and welfare of the citizens of the Commonwealth would be adequately protected if the proposal was published as a final-form rulemaking and the EPA did not approve revisions to the Commonwealth’s SIP. (31)

Response: The final-form rulemaking is designed to ensure that Chapter 126, Subchapter C will not be applicable under Commonwealth or Federal law when the EPA approves the necessary Non-Interference Demonstration SIP revision to the Commonwealth’s SIP. Significant adverse impact on the health, safety or welfare of the citizens of this Commonwealth is not anticipated from removing the low RVP requirements for the Pittsburgh-Beaver Valley Area. Ambient air monitoring in the Pittsburgh-Beaver Valley Area has demonstrated decreasing levels of ozone concentrations since 2002. The chart presented in Figure 1 shows the downward trend in ozone design values for the Pittsburgh-Beaver Valley Area for the years 2002 through 2016. The design value is the annual fourth-highest daily maximum 8-hour ozone concentration measured at an ambient air quality monitor averaged over 3 years. In 2014 the Pittsburgh-Beaver Valley Area came into compliance with the 2008 Ozone NAAQS and in 2016 came into compliance with the more stringent 2015 Ozone NAAQS.

Figure 1. Chart displaying trend in 8-hour Ozone Design Values from 2002 through 2016 for the Pittsburgh-Beaver Valley Area



Although the Department projects a small increase in emissions in the affected area in the near term from switching from low RVP gasoline to conventional RVP gasoline, the emission reduction benefits achieved by low RVP gasoline have been declining and will continue to decline steadily in future years, decreasing from 1.63 tons of VOC per day in 2017 to 1.33 tons of VOC per day by 2030. The decline in emission reduction benefits achieved by the low RVP gasoline is due to the implementation of technologies like electric vehicles and onboard refueling vapor recovery canisters in gasoline-powered vehicles, as well as permanent and enforceable

control measures established by the EPA's multiple tiers of fuel and vehicle emission standards that have been implemented beginning in the early 2000s. In addition to the emission reduction benefits of the mobile source control measures, permanent and enforceable control measures for industry and stationary sources have contributed to the consistent downward trend in monitored ozone design values for the Pittsburgh-Beaver Valley Area. Therefore, the removal of the low RVP gasoline volatility requirements as an ozone pollution control measure is very unlikely to have an adverse impact on ozone air quality and the public health and welfare in the Pittsburgh-Beaver Valley Area.

The revised approach taken in this final-form rulemaking will ensure that the health, safety, and welfare of the citizens of this Commonwealth will not be negatively impacted if the EPA does not approve the Non-Interference Demonstration revision to the SIP that the Department is preparing to submit. The amendment to § 126.301 will ensure that Chapter 126, Subchapter C will remain in effect and the emission reduction benefits from the existing regulation will continue to occur until the EPA approves the Non-Interference Demonstration SIP revision.

Implementation Procedures

3. Comment: IRRC requested that the Board provide an explanation in the Preamble of the final-form rulemaking to explain its implementation plan and why the Board believes the plan is consistent with Act 50. (31)

Response: An explanation of the revised approach being implemented in the final-form rulemaking and why this approach is consistent with Act 50 is included in the Preamble for the final-form rulemaking.

Compliance with Act 50 of 2014

4. Comment: The commentators, all members of the Pennsylvania House of Representatives, stated that with this proposed rulemaking, the Department continues to carry out the legislature's directive from Act 50 of 2014. (11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30)

Response: The Department thanks the Representatives for their support and agrees that the proposed rulemaking complied with the intent of the legislature's directive in Act 50. Although this final-form rulemaking alters the approach being used to carry out Act 50 in response to comments received, the amended approach achieves the goals of Act 50 consistent with Federal law. Please also see the responses to Comments #1 and #2 for additional explanation.

5. Comment: The commentators, all members of the Pennsylvania House of Representatives, stated that Act 50, which was enacted with substantial bipartisan support in both Chambers of the General Assembly, was enacted in response to the concerns expressed by residents of western Pennsylvania. (11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30)

Response: The Department appreciates the Representatives' attention to the concerns of those residents.

General Support for Rulemaking

6. Comment: The commentators expressed general support for the repeal of the Gasoline Volatility Requirements (Chapter 126, Subchapter C) regulation, also referred to by some commentators as ‘low RVP gasoline’ or ‘summer gas’ requirements. (1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30)

Response: The Department thanks the commentators for the support.

7. Comment: This commentator also expressed support for “the reasons Mr. Vogel has submitted.” (5)

Response: No comments were received from a Mr. Vogel. Senator Vogel of the Pennsylvania General Assembly was a co-sponsor of Act 50, and the reasons for the bill are expressed in the Senate Co-Sponsorship Memorandum posted at <http://www.legis.state.pa.us/cfdocs/Legis/CSM/showMemoPublic.cfm?chamber=S&SPick=20130&cosponId=12920>. The memorandum states that:

In 1998, the Department of Environmental Protection adopted a 7.8psi RVP fuel standard for southwestern Pennsylvania to address federal air pollution control measures. Since that time, ethanol became mandated by the federal government, increasing the RVP value of fuel. This resulted in an exclusive “boutique” fuel mandate for southwestern Pennsylvania. In recent years, we have seen higher gas prices averaging 10 to 15 cents higher in western Pennsylvania than in neighboring counties and also across the border in Ohio. In Pennsylvania, this boutique fuel is only required for the Pittsburgh region, and demand for the product is low. This equates to a hidden tax drivers must pay in southwestern Pennsylvania that is not required anywhere else.

The Board addressed these reasons in its preamble to the proposed rulemaking and has addressed them again in the preamble to the final-form rulemaking.

Reduce Costs and Improve Operations

8. Comment: Several commentators stated that eliminating the Gasoline Volatility Requirements of Chapter 126, Subchapter C will help to reduce the cost of gasoline to the consumer. (1, 2, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30)

Response: The Department’s analysis of refining costs and terminal and retail prices shows that costs may be reduced for refiners and distributors, and possibly gasoline retailers and consumers, if the upstream cost savings for not refining gasoline to an RVP of 7.8 are passed through the gasoline supply chain. The exact cost savings benefit that may result from the removal of the requirements of Chapter 126, Subchapter C is difficult to quantify due to the many factors used to establish the price of petroleum products, as well as the evolving nature of the petroleum products industry in the United States.

The Department's analysis of terminal prices indicated that during the summer months (May 1 – September 15) of 2006 through 2012 (excluding summer 2009), seasonal average rack (terminal) prices in the Pittsburgh metropolitan area ranged from \$0.095 below to \$0.032 above the Pennsylvania statewide average rack (terminal) prices. See Table 6 in the Regulatory Analysis Forms for the proposed and final-form rulemakings. The Department's analysis of retail gasoline prices indicated that during the summer months (June 1 – September 30) of 2005 through 2014, seasonal average retail gasoline prices in the Pittsburgh metropolitan area ranged from \$0.037 below to \$0.092 above the Pennsylvania statewide average retail gasoline prices. In the winter (October 1 – May 31), seasonal average retail gasoline prices in the Pittsburgh metropolitan area ranged from \$0.015 below to \$0.101 above the Pennsylvania average retail gasoline prices. See Table 7 in the Regulatory Analysis Forms for the proposed and final-form rulemakings.

In the most recent 5 years of data listed in Table 7, 2011—2015, the Pittsburgh metropolitan area average retail gasoline prices have been higher than Pennsylvania's average retail gasoline prices in both summer and winter. Because both summer and winter prices have been higher, it is unclear how much of the summer price differential is due to the low RVP gasoline requirement and how much is due to local market forces and other factors. It is also not possible to determine if the cost savings that may result from the final-form rulemaking action will be passed on to the consumer when the Gasoline Volatility Requirements are no longer applicable.

Further, if the requirements of Chapter 126, Subchapter C are no longer applicable, this may allow for petroleum products to be supplied to western Pennsylvania from Midwestern refineries due to repurposing and switching directions of product flow in the gasoline supply pipelines. These and other potential changes for the area's gasoline supply could influence the price for gasoline blends in the Pittsburgh-Beaver Valley Area going forward as much as or more than the requirements of Chapter 126, Subchapter C becoming no longer applicable.

In addition, the effective energy content of summer gasoline may be lowered as a result of the removal of the requirements of Chapter 126, Subchapter C since gasoline could be manufactured with a higher volatility to meet the Federal standard of 9 psi or 10 psi. This higher volatility could reduce the number of miles per gallon of gasoline a vehicle achieves (fuel efficiency). The effect on a vehicle's fuel efficiency will probably be small. Please see the response to Comment #18 for additional information.

9. Comment: The commentators did not agree with the statement in the Executive Summary of the Proposed Rulemaking that businesses involved in gasoline transport and storage are unlikely to see much impact, if any, as the type of gasoline being transported does not directly affect the business operation. The commentators stated that logistics companies must set aside tanks each summer and, on an annual basis, segregate batches of the boutique 7.8 psi RVP gasoline for the Pittsburgh-Beaver Valley Area, resulting in resupply limitations, constrained assets, and an ongoing need to protect the restrictive 7.8 psi RVP of the Pittsburgh fuel along the pipeline. The commentators stated that less tank segregation would create efficiencies in distribution which should improve the flow of petroleum products within the state. (8, 9)

Response: The Department appreciates the insight provided by the commentators. The Executive Summary and the Regulatory Analysis Form for the final-form rulemaking have been revised to reflect this clarification.

10. Comment: The commentator stated the Department’s analysis in the Regulatory Analysis Form severely underestimated the total amount of low RVP gasoline consumed in the Pittsburgh-Beaver Valley Area in the summer months. The estimate was that the fuel consumption in the area was 16.7 million gallons for the summer months (June – September) of 2013. (8)

Response: The Department thanks the commentator for this information. The Department determined that the data source it used for estimating the 2013 statewide retail gasoline sales during the development of the proposed rulemaking was inaccurate. The Department is using statewide retail gasoline sales data collected by the Pennsylvania Department of Revenue for the final-form rulemaking. Total estimated Pennsylvania retail gasoline sales during the low RVP season (May 1 through September 15) based on 2016 Department of Revenue data were approximately 1.92 billion gallons. As in the original analysis, statewide retail gallons sold were apportioned to the Pittsburgh-Beaver Valley Area based on the percentage of vehicle miles travelled by gasoline-powered vehicles in the Pittsburgh-Beaver Valley Area as a portion of statewide gasoline-powered vehicle miles travelled, which is about 18.3%. The 2016 total for low RVP gasoline retail sales during the summer months in the Pittsburgh-Beaver Valley Area is estimated at approximately 352 million gallons (1.92 billion gallons x 18.3% = ~352 million gallons). This 2016 total for low RVP gasoline retail sales compares well to the 2009 total of 329.91 million gallons cited in the study developed by E.H. Pechan & Associates, Inc., “Fuel Costs for Pennsylvania Gasoline Blends.”

Note that the revised estimated total for low RVP gasoline retail sales in the Pittsburgh-Beaver Valley Area does not change the Department’s estimates of emission reductions, because the emission reductions were developed independently of gallons of gasoline sold. Emissions were estimated with a computer model. Highway vehicles emissions were estimated using EPA’s MOVES2014 Model. Nonroad emissions were estimated using version MOVES2014a. The model estimates emissions using a variety of inputs, including, among other factors, traffic volumes, vehicle speeds, vehicle fleet mix, fuel characteristics, and parameters of the state’s vehicle inspection and maintenance testing program. Gasoline consumption is not used as an input into the computer model, and so the change in the estimated total for low RVP gasoline retail sales does not affect the emission reduction estimates.

11. Comment: The commentator estimated that the historical difference in retail price between the 7.8 psi low RVP gasoline and 9.0 psi (with a 1.0 psi waiver) RVP gasoline in the surrounding Pennsylvania counties to be approximately 9 cents per gallon (cpg). The commentator estimated savings for the area could be as much as \$8,900,000 for the May 1 – September 15 time frame. [Department’s note: This estimate appears to be based on the volume of fuel delivered to the area by this commentator only and does not include fuel delivered by other entities.] (9)

Response: The Department’s examination of retail prices for the proposed rulemaking indicated that retail prices for low RVP fuel in the Pittsburgh metropolitan area were 9 cpg more on average than the Pennsylvania statewide average retail gasoline price in the 2014-2015 summer season (June – September 2014). However, retail prices for low RVP gasoline were between 1.6

cpg and 9.2 cpg more on average for the 5 most recent years of available data (2011 – 2015). The Department updated its estimates of potential cost savings in the final-form rulemaking Regulatory Analysis Form based on the revised data relating to fuel consumption in the affected area. For the purposes of this estimate, the Department assumed that consumers in the Pittsburgh metropolitan area will be paying the Pennsylvania average retail gasoline prices if the requirements of Chapter 126, Subchapter C are no longer applicable. Based on the 5 most recent years of available data, consumers could potentially save from 1.6 cpg to 9.2 cpg, if cost savings are passed on to consumers.

The Department recalculated the potential cost savings for consumers based on summer season retail sales of 352 million gallons in the Pittsburgh-Beaver Valley Area. Using the same range of potential cost savings for consumers of 1.6 cpg to 9.2 cpg given in the Regulatory Analysis Form for the proposed rulemaking, the total estimated cost savings for consumers resulting from the proposed rulemaking would range from \$5,632,000 (1.6 cpg x 352 million gallons x \$1/100 cents) to \$32,384,000 (9.2 cpg x 352 million gallons x \$1/100 cents). This calculation is based on the assumption that consumers may be purchasing low RVP fuel as early as the May 1 compliance date for refiners and terminals, rather than the later June 1 compliance date for retailers and wholesale purchaser-consumers. The potential cost savings for an individual consumer would be directly dependent on how much gasoline a consumer purchases from a retail entity subject to Chapter 126, Subchapter C during the during the time period of June 1 through September 15; low RVP fuel may be available for purchase from retailers as early as May 1, which would increase the period in which consumers could experience cost savings from the removal of the Chapter 126, Subchapter C requirements. For example, a consumer that purchased a total of 100 gallons of low RVP gasoline could potentially save from \$1.60 (1.6 cpg x 100 gallons x \$1/100 cents) to \$9.20 (9.2 cpg x 100 gallons x \$1/100 cents) for the season.

It should be further noted that in the most recent 5 years of data evaluated by the Department, the Pittsburgh metropolitan area average retail gasoline prices have been higher than the Pennsylvania statewide average retail gasoline prices in both summer and winter. Because of this higher average retail price year-round, it is unclear how much of the summer price differential is due to the low RVP gasoline requirement and how much is due to local market forces and other factors.

12. Comment: The commentators stated that requiring the use of a “boutique” gasoline blend has a direct economic cost on the residents of western Pennsylvania. (8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30)

Response: The Department agrees that making Chapter 126, Subchapter C no longer applicable may result in cost savings for affected entities in the Pittsburgh-Beaver Valley Area; however, as previously mentioned, many factors influence consumer gasoline prices. Pittsburgh metropolitan area average retail gasoline prices have been higher than the Pennsylvania average retail gasoline prices in both summer and winter for the most recent 5 years of available data. It is unclear how much of the price differential in summer is due to the low RVP gasoline requirement and how much is due to local market forces and other factors, including supply networks. It is also difficult to determine if the cost savings that may result from this final-form rulemaking action will be passed on to the consumer when Chapter 126, Subchapter C is no longer effective.

13. Comment: The commentators stated that the recent repeal of low RVP gasoline requirements in areas in Ohio and other areas of the United States have resulted in the Pittsburgh-Beaver Valley Area becoming isolated as the lone area in the Eastern U.S. requiring a “boutique” gasoline blend. (8, 9)

Response: The Department agrees.

14. Comment: The commentator stated that the repeal of the regulation should be expedited to relieve consumers of the cost associated with low RVP gasoline. (8)

Response: The Department appreciates the commentator’s concern. The rulemaking process, however, is strictly defined by Pennsylvania statute and the Department’s ability to expedite this rulemaking process is limited. Please also see the responses to Comments #8, 11, 12, and 15 for discussions of how removing the low RVP gasoline requirements may affect consumer costs.

15. Comment: The commentator stated that people in western Pennsylvania can travel to Ohio to purchase cheaper gasoline. Less gasoline will be sold in Pennsylvania as consumers travel across state borders to save money. (5)

Response: The Department agrees that this is possible. The Department has amended § 126.301 by adding language that will make Chapter 126, Subchapter C no longer applicable to the Pittsburgh-Beaver Valley Area upon the effective date of approval by the EPA of the removal, suspension, or replacement of Chapter 126, Subchapter C as a part of the Commonwealth’s SIP. Upon the EPA’s approval of a revision to the SIP that removes, suspends, or replaces Chapter 126, Subchapter C, the requirements of Chapter 126, Subchapter C will no longer be applicable at either the Federal or the state level.

This action will align Pennsylvania’s gasoline RVP requirements with the requirements of the bordering states, removing RVP content from the equation for comparing costs across state borders. This may enable Pennsylvania retail gasoline prices in the Pittsburgh-Beaver Valley Area to be more competitive with other states. It is important to note, however, that other factors affect the retail price of gasoline between states and localities, including state taxes and fees on the purchase of gasoline at the retail level. The total of state taxes and fees on the retail purchase per gallon of gasoline in the surrounding states range from 15.80 – 36.90 cpg lower than in Pennsylvania; Ohio state gasoline taxes and fees are 28.01 cpg, which is 31.29 cpg lower than Pennsylvania’s current rate of taxes and fees on the retail purchase per gallon of gasoline of 59.30 cpg. The Department does not have state-specific historic fuel retail price data for the surrounding states, but differences in state and local gasoline taxes and fees may have as much or more influence on the difference in gasoline prices across state borders as the influence of the low RVP gasoline requirements.

16. Comment: The commentator stated that when the Chapter 126, Subchapter C Gasoline Volatility Requirements are rescinded and the RVP requirement is relaxed from 7.8 psi to 9.0 psi, the maximum RVP for the state will be 10.0 psi, including a 1.0 psi waiver for gasoline containing ethanol between 9 and 10 volume percent, during the May 1 through September 15 time period, exclusive of the Philadelphia region. The commentator states that revoking the

Gasoline Volatility Requirements will improve the supply of gasoline to the Pittsburgh-Beaver Valley Area. (9)

Response: The Department agrees that eliminating the requirement for 7.8 psi RVP gasoline may improve supply logistics and enable the area to be supplied by additional sources (distributors, bulk terminals, etc.) that have 9.0 (or 10.0) psi RVP gasoline available but did not have 7.8 psi RVP gasoline available for sale. Having these additional sources of 9.0 (or 10.0) psi RVP gasoline may improve the supply of gasoline in the area. It is important to note, however, that potential changes to the petroleum product supply chain, such as a gasoline supply pipeline switching directions, may have a far more significant impact on the supply of gasoline blends in the Pittsburgh-Beaver Valley area than the removal of the requirements for 7.8 psi RVP gasoline.

17. Comment: The commentators stated that the repeal of the low RVP Gasoline Volatility Requirements will lead to less fuel segregation in storage tanks, which will allow for more efficient supply logistics. (8, 9)

Response: The Department agrees. Please also see the response to Comment #16.

18. Comment: These commentators asserted that the removal of the requirement for low RVP will improve efficiency for vehicles and equipment that operate on gasoline. (1, 2, 4)

Response: The Department assumes the commentators are referring to the fuel efficiency of gasoline-powered vehicles and equipment. The Department notes that replacing a 7.8 psi RVP gasoline with a gasoline that has an RVP of 10.0 psi may decrease fuel efficiency. The switch to higher-volatility gasoline could result in a loss in fuel efficiency due to a lower hydrocarbon energy content in the gasoline, although the effect would likely be small. One can see why if summer and winter gasoline blends are examined. Higher RVP gasoline sold in the winter contains more butane, which has a higher vapor pressure than traditional hydrocarbon gasoline constituents. The higher RVP means more gasoline exists in the vapor phase in colder weather, which aids in starting cold vehicles. Butane, however, displaces traditional hydrocarbon gasoline constituents that have higher energy content. On a per-volume basis, butane contains about 20% less energy than traditional hydrocarbon gasoline constituents. Winter gasoline blends normally have about 1.8% less total energy content than summer gasoline, but can have as much as 7.8% less total energy content than summer gasoline.

The difference in total energy content between low RVP gasoline and conventional gasoline during the summer months is probably less than the 1.8% mentioned above. The conventional summer gasoline could be blended by adding either more butane or ethanol. Like butane, ethanol also has a lower energy content than the typical hydrocarbon constituents in gasoline. Higher butane or ethanol content could lower the energy content by a small amount per unit volume of gasoline that is purchased at the pump. This would lead to lower fuel efficiency (miles per gallon) in vehicles. Also, conventional gasoline with a higher RVP content than the 7.8 psi RVP content gasoline will evaporate more readily, which will lead to less of the purchased gasoline being available for combustion.

19. Comment: The commentators stated that improved emission controls on vehicles and new requirements for fuel content eliminate the need for the Gasoline Volatility Requirements regulation. (1, 2, 4, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30)

Response: The Department agrees that improvements in vehicle technology, such as onboard refueling vapor recovery systems, and more stringent regulations for vehicle emission controls and fuel content, such as EPA's Tier 3 regulations, will likely result in diminishing emission reduction benefits from the existing regulation, nearing zero over the next 10-15 years. Although the emission reduction benefits diminish over time, the Department plans to demonstrate in the Non-Interference Demonstration SIP revision submitted to the EPA that the remaining lost emission reduction benefits from making Chapter 126, Subchapter C no longer applicable are offset by commensurate emission reductions. Please see the responses to Comments #22 and #23 for additional details on the emission reduction benefits of Chapter 126, Subchapter C.

21. Comment: The commentator stated that the population of the Pittsburgh-Beaver Valley Area should enjoy the same benefits as other areas that repealed low RVP gasoline requirements, including Florida, Ohio, North Carolina, Alabama, and Tennessee. The commentator did not specify what those benefits include. (8)

Response: The Department agrees that there will likely be economic benefits to the Pittsburgh-Beaver Valley Area resulting from the removal of the requirements of Chapter 126, Subchapter C. However, as noted in the Department's analysis of terminal and retail gasoline prices in the area, market forces in the local area will determine if the Pittsburgh-Beaver Valley Area sees beneficial impacts similar to the outcomes in the states listed in the comment.

Issues Concerning Air Quality

22. Comment: The commentators stated that there should be minimal adverse impact on local air quality due to the repeal of the low RVP gasoline requirement. (1, 2, 4, 5, 8, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30)

Response: The Department agrees. The environmental benefits of Chapter 126, Subchapter C will likely diminish over the next 10-15 years. Using the EPA-approved MOVES2014 computer model, the Department modeled the change in emissions that would result from 7.8 psi RVP gasoline being replaced by 10.0 psi RVP gasoline. The modeling indicates that emissions from gasoline-powered highway and nonroad sources using 10.0 psi RVP gasoline in the Pittsburgh-Beaver Valley Area will increase by 1.63 tons of VOC emissions and 0.35 tons of NO_x emissions per summer day in the year 2017, compared to the baseline emissions of these sources when using 7.8 psi RVP gasoline. These increased emissions will diminish to 1.3 tons per day of VOC emissions and 0.01 tons per day of NO_x emissions by 2030. The Department plans to demonstrate through a Non-Interference Demonstration SIP submittal to the EPA that removing Chapter 126, Subchapter C from the Commonwealth's SIP will not interfere with attainment or reasonable further progress for any applicable NAAQS, by offsetting the lost emission reductions with emission reductions from other control measures and projects.

23. Comment: The commentator stated that the emission benefits of the low RVP gasoline volatility program in the Pittsburgh market have diminished as a result of the EPA implementing the regulatory requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) from Gasoline Terminals and Pipelines Facilities (40 CFR Part 63 Subpart BBBBBB). The NESHAP requires more stringent controls, monitoring, recordkeeping, and reporting for gasoline distribution bulk terminals, bulk plants, and pipeline facilities. (8)

Response: The Department agrees. Emissions from gasoline storage tanks are well controlled. The change in total emissions from gasoline storage tanks in the Pittsburgh-Beaver Valley Area will likely be very small. The Department's emissions inventory indicates that total emissions in the Pittsburgh-Beaver Valley Area from storage tanks that store gasoline, both fixed roof and floating roof tanks, are less than 10 tons of VOC per year or 0.03 ton per day. The methodology for estimating these emissions indicates that the change in total emissions resulting from storing gasoline with an RVP of 10.0 psi instead of 7.8 psi will be minimal.

24. Comment: The commentator stated that the proposed rulemaking does not specify the quantity of VOC emissions that are prevented by the Pittsburgh-Beaver Valley Area's low RVP requirement. (10)

Response: The Board addressed the quantity of emission reduction benefits that would be achieved by the low RVP gasoline requirement in Section F of the preamble to the proposed rulemaking under benefits. See 47 Pa.B. 1158. The Board stated that "[R]escinding the requirements for low RVP gasoline in the Pittsburgh-Beaver Valley Area will likely result in slightly increased emissions of VOCs into the atmosphere for the next few years. The VOC emission reduction benefits from requiring low RVP gasoline in the Pittsburgh-Beaver Valley Area steadily decline in future years, decreasing from VOC emission reductions of 1.636 tons per day in 2017 to VOC emission reductions of 1.329 tons per day by 2030. The NO_x emission reduction co-benefits of low RVP gasoline decline from 0.354 ton per day in 2017 to 0.007 ton per day in 2030." Further, Table 5 in the proposed rulemaking's Regulatory Analysis Form listed the anticipated amount of emission reduction benefits for the low RVP gasoline program for highway and nonroad sources for VOC and NO_x in tons per day for the years 2017, 2025 and 2030. Emission reduction benefits for low RVP gasoline were estimated using MOVES2014, the EPA-approved mobile source emission model.

25. Comment: The commentator described a state's obligations under Section 110(l) of the Federal Clean Air Act (CAA) relating to demonstrating non-interference with the attainment, reasonable further progress, and any other applicable requirements for all NAAQS in effect in the area subject to the SIP revision. (10)

Response: These comments are outside the scope of this proposed rulemaking. The Department is developing a revision to the Commonwealth's SIP to demonstrate compliance with Section 110(l) of the CAA. This Non-Interference Demonstration SIP revision will be proposed separately by the Department and have its own 30-day public comment period and opportunity for public hearing. The Department suggests that the commentator submit its comments to the Department during the public comment period for that proposed SIP revision.

26. Comment: The commentator stated that the proposed rulemaking does not specify either the type of emission reductions in the Pittsburgh-Beaver Valley Area that are proposed to offset the increased VOC emissions that will result from any rescission of the low RVP standard, or the sources of such reductions. (10)

Response: This comment is beyond the scope of this proposed rulemaking. The type of emission reductions that will be used to offset any increases in emissions that may result from the removal of the requirements of Chapter 126, Subchapter C from the Commonwealth's SIP will be addressed by the Department in the Non-Interference Demonstration SIP revision described in response to Question #25.

Pennsylvania Vehicle Inspection and Maintenance Program

27. Comment: The commentator stated that the Pennsylvania Vehicle Inspection and Maintenance Program should be eliminated. (4)

Response: The comment is beyond the scope of this proposed rulemaking.