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Pennsylvania Department of Environmental Protection
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PO Box 8468
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Dear Ms. Epps,

Thank you for providing the opportunity to meet with you and your staff regarding Pennsylvania Act 135 of 2012. GASP offers these comments regarding the Pennsylvania Department of Environmental Protection's ("the Department's") ongoing review and reevaluation of the Pittsburgh-Beaver Valley summer gasoline volatility requirements pursuant to Act 135. The low RVP gasoline requirement is an essential and cost-effective part of the ozone control strategy for the Pittsburgh-Beaver Valley Area and GASP urges the Department to retain it.

1. Background

On November 1, 1997, the Pennsylvania Environmental Quality Board promulgated regulations establishing a gasoline Reid Vapor Pressure limit of 7.8 psi for gasoline "which is sold or transferred into or within the Pittsburgh-Beaver Valley Area during the period May 1 through September 15, 1998, and each year thereafter."[1] This low RVP gasoline requirement reduces emissions of ozone-forming volatile organic compounds (VOCs), and is incorporated into the Pennsylvania State Implementation Plan (SIP) as part of the Pittsburgh-Beaver Valley ozone control strategy.[2]

While ozone concentrations in the Pittsburgh-Beaver Valley area are much lower today than when the low RVP gasoline program was established, the area continues to struggle to meet the ozone NAAQS. The Pittsburgh-Beaver Valley area is designated nonattainment for the 2008 8-hour ozone standard of 0.075ppm.[3] The current ozone

[1] 27 Pa.Bulletin 5601; 25 Pa. Code Chapter 126 Subchap. C. (The Pittsburgh-Beaver Valley Area is comprised of Allegheny, Armstrong, Beaver, Butler, Fayette, Washington and Westmoreland counties; 25 Pa. Code § 121.1).
[2] 63 FR 31116; 66 FR 19724.
[3] 77 FR 30088

NAAQS review is expected to be final in 2014[4] and to be set somewhere between 60 and 70 ppm.[5] The Pittsburgh-Beaver Valley area will likely be designated nonattainment for the 2014 standard as well.[6]

2. The Baker analysis underestimates emissions benefits of low RVP gasoline

At the Department's request, Michael Baker Jr., Inc. estimated the air quality benefits of the low RVP gasoline program. The Baker analysis concluded that the continued use of low RVP gasoline would reduce weekday ozone season VOC emissions in the Pittsburgh-Beaver Valley area by roughly 1.61 tons per day (TPD) compared to the use of conventional gasoline.[7] While a 1.61 TPD decrease in VOC emissions is not insignificant, GASP believes the Baker analysis significantly underestimates the actual VOC benefits of the low RVP gasoline program.[8]

a. The Baker analysis appears to rely on an inappropriately high assumption regarding the RVP of Pittsburgh-Beaver Valley summer fuel and an inappropriately low assumption regarding the RVP of conventional gasoline

GASP was not provided with the Baker analysis' MOVES input and output files; however, the Department did provide a spreadsheet summarizing projected Pittsburgh-Beaver Valley on-road VOC emissions based on various fuel characteristics.[9] This spreadsheet indicates that the 1.61 TPD figure is derived from an inappropriately high assumption regarding the RVP of Pittsburgh-Beaver Valley summer fuel and an inappropriately low assumption regarding the RVP of conventional gasoline.

The Baker spreadsheet arrives at the 1.61 TPD figure by comparing the VOC emissions resulting from "7.8 RVP, 10% Ethanol" gasoline and those resulting from "9.7 RVP, 10% Ethanol" gasoline. The "7.8% RVP, 10% Ethanol" label apparently refers to gasoline using the 1.0 psi waiver for ethanol-containing gasoline, resulting in an RVP limit of 8.8.[10] However, the Pittsburgh-Beaver Valley low RVP gasoline program does

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[4] CASAC, Review of the O3 NAAQS: Schedule and Process (Sep. 2012) at 2, *available at*: http://yosemite.epa.gov/sab/sabproduct.nsf/D598E6BF2D7551D885257A75007664FC/$File/Wegman+-+NAAQS+process+and+schedule+for+CASAC+meeting+9-10-12.pdf.

[5] Draft CASAC Panel Report (Oct. 15, 2012) at 2, *available at:* http://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/97EE4533C2D542F685257A98005C7661/$File/10-15-12+draft+casac+ozone+pa+review.pdf

[6] John Paul, Dayton Area Ozone Advance Program presentation to Clean Air Act Advisory Committee (Sep. 20, 2012) at 13-15, *available at:* http://www.epa.gov/air/caaac/pdfs/2012_09_dayton.pdf

[7] PADEP, Update on the Review and Reevaluation of the Gasoline Volatility Requirements (Oct. 2012) at 4-5.

[8] For instance, compare the Baker analysis' 1.61 TPD figure to the Louisiana Department of Environmental Quality's estimate that eliminating of the 7.8 RVP gasoline requirement in Grant Parish would result in a roughly 10% increase daily summer on-road VOC emissions. 73 Fed. Reg. 8202, 8207 (Feb. 13, 2008).

[9] Attachment 1 – Baker Spreadsheet.

[10] 40 CFR § 80.27(d).

not provide for the 1 psi ethanol waiver,[11] a fact the Department acknowledges in its October 2012 update on its review of the low RVP program.[12] Further, the "9.7 RVP, 10% Ethanol" label apparently refers to conventional gasoline using the 1.0 psi ethanol waiver for ethanol-containing gasoline. Conventional gasoline using the 1.0 psi ethanol waiver would have an RVP limit of 10.0; the Baker analysis appears to assume a conventional gas RVP of 9.7. Both errors result in underestimation of the actual benefits of the Pittsburgh-Beaver Valley summer fuel requirement. Substituting the Baker spreadsheet figure for "7.8 RVP, 0% ethanol" (which presumably refers to gasoline with an actual RVP of 7.8) results in a 4.48 TPD VOC reduction over the use of 9.7 RVP gasoline. If compared to 10.0 RVP conventional gasoline, the VOC reduction resulting from low RVP gasoline requirement would be greater still.

b. The Baker analysis omits several significant source categories

The Baker analysis only considers VOC emissions from on-road sources,[13] however, VOC emissions from several other significant source categories would also increase if the low RVP gasoline requirement were eliminated, such as bulk gasoline terminals, gas stations, and gasoline-fueled non-road equipment. Based on the 2008 NEI, in the Pittsburgh-Beaver Valley the combined VOC emissions from these three source categories are roughly equal to the VOC emissions from on-road sources (15020.05 TPY and 17447.24 TPY respectively).[14]

3. Act 135 was motivated by anticipated gasoline supply concerns that have since been averted

Despite the air quality benefits of the low RVP gasoline program and the continued ozone problem in the Pittsburgh-Beaver Valley area, Pennsylvania Act 135 of 2012 requires the Department to review and evaluate alternatives to the low RVP gasoline program.[15] The primary justification behind Act 135 was concern about loss of regional refinery capacity and the resulting impact on price and supply of summer gas in the Pittsburgh-Beaver Valley Area.[16] The potential refinery closures and their impact on gasoline price and supply were described in detail in U.S. Energy Information Administration ("EIA") reports released in December 2011 and February 2012.[17]

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[11] *See e.g.* USEPA, Guide on Federal and State Summer RVP Standards for Conventional Gasoline Only, *available at:* http://www.epa.gov/otaq/fuels/gasolinefuels/volatility/standards.htm.

[12] PADEP, Update on the Review and Reevaluation of the Gasoline Volatility Requirements (Oct. 2012) at 8.

[13] PADEP, Update on the Review and Reevaluation of the Gasoline Volatility Requirements (Oct. 2012) at 5.

[14] Attachment 2 – spreadsheet derived from 2008 NEI data.

[15] Act of July 5, 2012, P.L. 1109, No. 135.

[16] Pa. Legis. J., Sess..of 2012 196th of the General Assemb. No. 14 (Mar. 7, 2012) at 163-64, *available at:* http://www.legis.state.pa.us/WU01/LI/SJ/2012/0/Sj20120307.pdf.

[17] U.S. EIA, "Reductions in Northeast Refining Activity: Potential Implications for Petroleum Product Markets" (Dec. 23, 2011), *available at*: http://www.eia.gov/analysis/petroleum/nerefining/prelim/; U.S. EIA, "Potential Impacts of Reductions in Refinery Activity on Northeast Petroleum Product Markets" (Feb. 2012), *available at:* http://www.eia.gov/analysis/petroleum/nerefining/update/.

However, in the absence of supply concerns low RVP gasoline requirements have very little impact on price. In fact, low RVP programs are remarkably cost effective. A 2006 EPA report on boutique fuels noted that local RVP programs "have proven to be very successful in providing significant reductions in targeted emissions at a very low cost."[18] The proposed rulemaking for the low RVP program estimated low RVP gasoline would cost only 1 to 2 cents more per gallon.[19] More recent analyses of gasoline price confirm the 1 to 2 cent figure.[20] In a May 18, 2006 report to EPA's Boutique Fuels Task Force API stated that, "Boutique fuels can contribute to tight supplies and price volatility, particularly when there is a supply disruption or stress," but went on to note that "the patchwork of localized boutique fuels is not principally responsible for the recent higher gasoline prices."[21]

If the worst-case scenario described in EIA's February report had occurred, a temporary waiver of the low RVP gasoline requirement might well have been justified. Fortunately by late July, EIA's gasoline price and supply outlook for the Midatlantic and Northeast was much more optimistic. Citing the July 2nd announcement the Sunoco Philadelphia refinery would continue to operate, the planned fall 2012 restart of the Trainer Refinery, and increased petroleum supplies from waterborne sources and the Midwest, EIA stated that, "[c]oncerns regarding the supply of refined products on the U.S. East Coast have eased considerably in recent months," and that the expected gasoline supply gap had "disappear[ed] almost entirely."[22] Because low RVP price concerns were driven by anticipated supply problems that have since been averted, the rationale behind Act 135 has vanished as well. Meanwhile the ozone problem that the low RVP gasoline program is intended to mitigate remains. Eliminating the low RVP gasoline program under these circumstances would be entirely irrational.

4. The low RVP program cannot be eliminated unless PADEP satisfies the CAA § 110(l) noninterference requirement

Because the low RVP gasoline regulations are part of Pennsylvania's SIP-approved ozone control strategy, any modification of these regulations must be approved by the U.S. Environmental Protection Agency. Section 110(l) of the Clean Air Act prohibits EPA from approving a SIP revision if it would interfere with attainment or reasonable further progress.[23] To satisfy the §110(l) "noninterference requirement" any modification of the low RVP gasoline regulations resulting in increased VOC emissions

[18] US EPA, Report to the President: Task Force on Boutique Fuels (Jun. 2006) at 6, *available at:* http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P1003OC3.txt.
[19] 27 Pa.B. 5601.
[20] *See e.g.* Louis Silva et al., Petroleum Mergers and Competition in the Northeast United States (Apr. 2010) at 22, *available at:* http://www.ftc.gov/be/workpapers/wp300.pdf.
[21] API Statement to EPA's Governor's Boutique Fuels Task Force (May 18, 2006) *available at:* http://www.epa.gov/oms/boutique/resources/061806APIResponsesonBoutiqueFuels.pdf.
[22] U.S. EIA, "Update of the Status of East Coast Refineries" (Jul. 25, 2012), *available at:* http://www.eia.gov/oog/info/twip/twiparch/120725/twipprint.html.
[23] 42 U.S.C. § 7410(l)

must be offset by equal or greater VOC emissions reductions from new or previously unaccounted for VOC control measures. Failure to make such a demonstration may result in federal sanctions including withholding of federal highway and air program funds and more stringent new source review offset ratios.[24]

a. The API replacement suggestions are not sufficient to satisfy § 110(l)

The American Petroleum Institute (API) suggests that PADEP eliminate the low RVP program and replace the VOC emissions reductions it provides with other existing VOC emission reductions that are not currently accounted for in the Pennsylvania SIP.[25] API suggests that the Department seek credit for un- or under-credited emissions reductions from the Pennsylvania Clean Vehicles Program, on vehicle vapor recovery units, increased fuel efficiency, and stationary sources that are no longer operating.[26] However, in order for proposed emissions reductions to receive SIP credit, they must be quantifiable, surplus, enforceable, permanent, and contemporaneous.[27] Given these requirements, it is doubtful API's suggestions would provide significant creditable emissions reductions.

Reductions are "surplus" only to the extent they: have not already been accounted for in the SIP emissions inventory, were not used or needed to meet a federal or state air program requirement, and were not used for offsetting or netting purposes.[28] Because of the surplus requirement very few stationary source shutdowns may be uses as creditable emission reductions. For instance, any shutdown used for netting or which generated ERC allowances is not creditable. Similarly, the on vehicle vapor recovery unit reductions are not surplus if the Department intends to use the emissions reductions from on vehicle vapor recovery units to satisfy the noninterference (CAA § 110(l)) and comparable measures (CAA § 184(b)(2)) requirements to eliminate the Pennsylvania Stage II Vapor Recovery Program.[29] Finally, emissions reductions from the Clean Vehicles Program and fleet fuel efficiency would only be creditable if the Department's future year vehicle emissions projections are overestimated and then only to the extent emissions were overestimated.

Further, when emissions reductions are intended to offset emissions increases resulting from the removal of another SIP-approved control measure, the offsetting emissions reductions must be contemporaneous with the elimination of the original

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[24] 42 U.S.C. §§ 7410(m), 7509(b).
[25] Letter from Joseph Leighton, API to Joyce Epps, PADEP (Sep. 14, 2012).
[26] Letter from API to Joyce Epps, RE: Act 135 of 2012 (Sep. 24, 2012).
[27] *See e.g.* US EPA, "Incorporating Voluntary Stationary Source Emission Reduction Programs into State Implementation Plans" (Sep. 2004) at 2-4, *available at:* http://www.epa.gov/ttn/oarpg/t1/memoranda/evm_ievm_g.pdf; USEPA, Demonstrating Noninterference Under Section 110(l) of the Clean Air Act (Jun. 8, 2005) at 6-8, *available at:* http://www.4cleanair.org/Oldmembers/members/committee/criteria/110STAPPA.pdf.
[28] *Id.* at 3.
[29] USEPA, Guidance on Removing Stage II Gasoline Vapor Control Programs (Aug. 7, 2012) at 3-7, *available at:* http://www.epa.gov/glo/pdfs/20120807guidance.pdf; PADEP, Stage II Vapor Recovery Update (Jun 14, 2012) *available at:* http://www.dep.state.pa.us/dep/subject/advcoun/aqtac/2012/06-14-12/AQTAC_Stage_II_PPT_Revised_6-4-2012.pdf

control measure.[30] Thus for example, the Department could not eliminate the low RVP gas requirement in 2013 on the basis of vehicle emissions reductions projected for 2020.

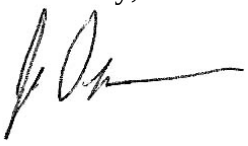
b. The API replacement suggestions would not address, and may in fact worsen, the Pittsburgh-Beaver Valley nonattainment problem

More important, even assuming sufficient existing unaccounted for control measures could be identified and incorporated into the SIP to replace the emissions reductions provided by the low RVP gas requirement, this would only address the CAA § 110(l) noninterference requirement, but would do nothing to address continued ozone NAAQS exceedances in the Pittsburgh-Beaver Valley Area. Replacing one VOC control measure with another would, at best, maintain existing levels of VOC emissions. If the low RVP gas program were replaced with other, previously uncredited VOC reductions that have already occurred the result would be an increase in actual emissions of VOCs.

Only additional actual reductions in ozone precursor emissions will allow the Pittsburgh-Beaver Valley Area to meet the 2008 and 2014 ozone NAAQS. Eliminating the low RVP gas program would mean the Department would have to obtain additional VOC emissions reductions beyond the status quo from other VOC emissions sources. Unless the Department can identify additional control measures that are less expensive to implement than the relatively cost-effective low RVP gas program, the end result will be a greater economic burden to achieve the same environmental benefit. While Act 135 may have been intended to eliminate "costly and burdensome regulation,"[31] eliminating the low RVP gas program is likely to result in a replacement that is more costly and more burdensome.

Thank you for providing this opportunity to comment on the Act 135 review and reevaluation of the Pittsburgh-Beaver Valley summer gasoline volatility requirements. If you have any questions please feel free to contact us.

Sincerely,



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[30] USEPA, Demonstrating Noninterference Under Section 110(l) of the Clean Air Act (Jun. 8, 2005) at 6-8, *available at:* http://www.4cleanair.org/Oldmembers/members/committee/criteria/110STAPPA.pdf.
[31] Pa. Legis. J., Sess..of 2012 196th of the General Assemb. No. 14 (Mar. 7, 2012) at 163, *available at:* http://www.legis.state.pa.us/WU01/LI/SJ/2012/0/Sj20120307.pdf.