

December 8, 2015

Christopher Grundler  
U.S. Environmental Protection Agency  
William Jefferson Clinton Building  
1200 Pennsylvania Avenue, N. W.  
Washington, DC 20460

**RE:** Request for EPA Action to Reduce RVP Cap of Summer Conventional Gasoline

Dear Mr. Grundler,

Nearly 30 years ago, the Environmental Protection Agency (EPA) developed a 1-pound per square inch (psi) waiver of the Reid Vapor Pressure (RVP) volatility requirements for certain gasoline blends.<sup>1</sup> It did so in recognition of the fact that lower volatility blendstocks were not readily available in the marketplace and to encourage the increased use of renewable fuels. The Agency also concluded, after extensive air quality modeling, that the 1-psi waiver would not result in increased ozone formation because reductions in exhaust hydrocarbons and carbon monoxide would offset the impact of potentially higher evaporative emissions.

Partially as a result of EPA's establishment of the 1-psi RVP waiver, renewable fuels are blended in nearly every gallon of gasoline sold in the country today. The waiver has indeed served its purpose, and we are writing today to ask EPA to effectively eliminate the relevance of the 1-psi RVP waiver. The Agency should use its authority to mandate that refiners market lower-RVP blendstocks for conventional gasoline in the summertime (*i.e.*, 8.0 psi in attainment areas) thereby allowing retailers to market a full spectrum of renewable fuel blends appropriate for use in a range of vehicle technologies. The 1-psi RVP waiver—originally provided to expand the production and use of fuel ethanol—is now having the perverse effect of discouraging greater ethanol use in today's gasoline market, and it is obstructing the successful implementation of important fuel and carbon reduction policies enacted since then, including the Renewable Fuel Standard.

Since 1989, when the 1-psi waiver was first developed by the Agency as a means of ensuring the availability of 10% ethanol blends (E10), vehicle technology and emissions control systems have significantly evolved. Emissions of *all* pollutants from vehicles are considerably lower, but evaporative emissions in particular represent a significantly lower percentage of overall emissions. Gasoline composition also has changed with the introduction of Reformulated Gasoline (RFG) and numerous low-RVP programs enacted by

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<sup>1</sup> 54 FR 11868, 11879 (March 22, 1989)

individual States. For automakers, engineering emissions control systems to account for a broad range of fuel volatilities is both costly and complex. The 1-psi RVP waiver is just one more complicating factor.

Ethanol availability and markets also have changed. Today, E10 blends represent more than 95% of total gasoline sales in the United States. Marketers no longer are faced with the challenge of finding appropriate blendstocks for E10. Rather, marketers wishing to increase their use of renewable fuels *beyond E10* are faced with the same dilemma E10 marketers faced 30 years ago.

The Agency has made it clear that it does not believe it has the statutory authority to extend the 1-psi RVP waiver to gasoline blends containing more than 10% ethanol. While there remains disagreement with EPA's conclusion on that issue, another option available to the Agency would be the effective elimination of the 1-psi volatility waiver's relevance by mandating lower-RVP summertime conventional gasoline blendstocks for mixing with all ethanol blends. Under the Clean Air Act, EPA has general authority to regulate the composition of fuels, *see* 42 U.S.C. § 7545(c), and it also has specific authority to mitigate any adverse effects on air quality based on the "renewable volumes" required by the Act, *id.* § 7545(v). These sections provide the Agency with ample authority to effectively eliminate the waiver by requiring lower-RVP gasoline blendstocks, thereby reducing volatility across the board and removing the refining industry's last excuse for achieving the renewable volume requirements mandated by Congress, while at the same time assuring even greater reductions in urban ozone formation. Compelling refiners to produce lower-RVP blendstock would also complement public-private efforts—such as the U.S. Department of Agriculture's Biofuels Infrastructure Partnership grant program—to expand renewable fuel distribution infrastructure.

An analysis recently completed for the Renewable Fuels Association evaluated a range of scenarios and methodologies to determine the cost of lowering the RVP of summertime conventional gasoline by 1 psi.<sup>2</sup> Three methodologies of successively increasing rigor were utilized to estimate the cost of effectively removing the 1-psi RVP waiver for summer conventional gasoline. The most robust methodology (using the Jacobs Linear Program model), which simulates a case where refiners have a host of options available to accomplish lower RVP, predictably gives the lowest cost (and most realistic) result—\$0.02 per gallon of summer conventional gasoline. When ethanol's historical wholesale price discount to gasoline is considered, the refining cost increase is more than offset by the savings gained via blending additional ethanol. Moreover, it is important to consider that this potential impact would not apply to winter gasoline or summer RFG, as RFG already disallows the 1-psi RVP waiver. Sales of summer conventional gasoline represent approximately 20-25% of total annual gasoline sales. Thus, when spread across total annual gasoline production, the refining cost impact of a 1-psi RVP reduction would be just \$0.006 per gallon.

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<sup>2</sup> Confluence Consulting, "Analysis of the Cost Associated with the Elimination of the One Pound Waiver", June 2015.

More importantly, there are emissions benefits to be gained by eliminating the 1-psi RVP waiver. This should be particularly relevant as the Agency is in the process of tightening national ozone standards. Effectively removing the relevance of the 1-psi waiver for E10 would result in improved air quality and reduced potential ozone formation. Modeling conducted by Air Improvement Resource, Inc. using EPA's MOVES2014 tool indicates elimination of the waiver would reduce carbon monoxide emissions by nearly 16,000 tons per month in the summertime (0.9%), nitrogen oxide emissions by more than 700 tons per month (0.4%) and volatile organic compounds by approximately 1,850 tons per month (1.2%).<sup>3</sup> The economic value of these emissions reductions alone would offset any negligible increase in refining costs.

In closing, we urge EPA to immediately undertake actions to accomplish the effective elimination of the 1-psi RVP waiver's relevance through mandated use of lower-RVP gasoline blendstocks. This action would improve air quality, remove arcane barriers to innovation and consumer choice in the retail fuel marketplace, simplify engineering of emissions control systems, and help facilitate compliance with Renewable Fuel Standard requirements. In addition, removing the waiver would not noticeably affect refining costs. As a final matter, we note that our recommendations are consistent with the requested actions outlined in a letter you received yesterday from the Auto Alliance (Dec. 7, 2015).

Thank you for considering this request, and we look forward to discussing this important matter with you in more detail.

Sincerely,



Bob Dinneen  
President & CEO

**cc:**

Bill Charmley  
Paul Machiele  
Karl Simon

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<sup>3</sup> Air Improvement Resources, "Analysis of the Emission Impacts of Elimination of the 1 psi RVP Waiver for 10% Ethanol Blends", July 2015. The National Renewable Energy Laboratory (NREL) found the emissions reductions could be even more significant: "Eliminating the 1-psi waiver would reduce evaporative VOC emissions from non-RFG fuel by about 5%." See NREL (March 26, 2012) "Discussion Document – Effect of Ethanol Blending on Gasoline RVP," Memorandum to Renewable Fuels Association.