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VIA ELECTRONIC FILING
July 8, 2020

Administrator Andrew Wheeler
U.S. Environmental Protection Agency
Docket ID EPA-HQ-OAR-2020-0240
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator Wheeler,

The National Biodiesel Board (NBB) appreciates the opportunity to respond to the U.S. Environmental Protection Agency's (EPA) proposed Determination for Renewable Fuels and Air Quality Pursuant to Clean Air Act Section 211(v)(1) Anti-backsliding Study.[1] While NBB supports EPA's determination that no additional fuel control measures are necessary under Clean Air Act section 211(v), we ask that the supporting document accurately reflect the advancements and benefits of increased blending and use of biodiesel. We believe the Anti-backsliding study undercuts the known benefits of the Renewable Fuel Standard (RFS) program on air quality.

The study, because it only considers blends of five percent biodiesel (B5), fails to acknowledge the known linear beneficial decrease in emissions from increased use of higher blends of biodiesel. Furthermore, according to the Diesel Technology Forum, only 43 percent of U.S. commercial trucks have zero emissions diesel technology (engines equipped with selective catalytic reduction and particulate control technologies), leaving upwards of 57 percent of onroad engines without the significant emissions reductions controls. As a result, the impact that biodiesel will have on onroad engines alone is greater than the Anti-backsliding Study suggests.

Additionally, while EPA acknowledged the limited data on emissions in nonroad engines using biodiesel, there are known benefits. Because nonroad engines typically do not utilize diesel particulate filters (DPF) or any other advanced emission control devices, greater emissions benefits can be obtained by using biodiesel at any blend level, due to the emissions profile of biodiesel. When compared to petroleum-based diesel; biodiesel has several benefits. Biodiesel reduces lifecycle greenhouse gases by as much as 85 percent; lowers diesel particulate matter by 47 percent; reduces hydrocarbon emissions by 67 percent; and in so doing reduces smog and ozone formation for healthier air. The use of increasing biodiesel volumes helps improve on road, nonroad, and other applications such as the heating oil industry.

The absence of EPA's historical data of biodiesel use across the country should not discount the benefits of biodiesel that are clearly known and articulated through existing reliable data. Failure to account for the impacts of both higher and lower biodiesel blends, assuming B5 across the nation, does a disservice to the industry that is working to continuously improve their tailpipe emissions profile.

[1] 85 Fed. Reg. 35,048 (June 8, 2020)

Biodiesel reduces harmful tailpipe emissions that have an adverse impact on populations living in congested areas or traffic corridors and those areas affected by drifting pollution levels. Overall, biodiesel reduces criteria air pollutants, producing a direct benefit to human health. This includes reducing unburned hydrocarbons by 67 percent, reducing carbon monoxide by 48 percent, reducing polycyclic aromatic hydrocarbons by 80 percent, reducing nitrated PAHs by 90 percent, and reducing ozone potential of speciated hydrocarbons by 50 percent.[2] EPA finds that B20 can reduce particulate matter ($PM_{2.5}$) by 10.1 percent. More recent engine testing at the University of California Riverside for the California Air Resources Board (CARB) found even greater $PM_{2.5}$ reductions of six percent for B5 and 10-15 percent for B10.[3]

In a 2008 study, EPA found that biodiesel had roughly ten times less emissions of PM compared to distillate fuel oil.[4] The same study found that SO_2 was nearly four times higher for the distillate petroleum fuel oil than for biodiesel, and NO_X emissions were slightly higher for the distillate fuel.[5] This finding differs from the Anti-backsliding Study that showed no difference in SO_X and an overall 0.4 percent increase in NO_X for on road biodiesel. Overall, according to EPA, biodiesel emitted less pollutants than the distillate fuel oil, and the low life-cycle CO_2 emissions for the biodiesels results in a net CO_2 reduction of nearly 75 percent when compared to the petroleum distillate fuel.[6]

While EPA looked at B5, biodiesel is typically used as a blend with petroleum diesel at levels up to 20 percent (B20). The presence of oxygen in the fuel leads to a reduction in emissions of hydrocarbons (HC) and toxic compounds, carbon monoxide (CO), and particulate matter (PM) when biodiesel blends are burned in diesel engines.[7] These reductions are robust and have been observed in numerous engine and vehicle testing studies, using various fuels and duty-cycles. On average, B20 reduced PM and CO emissions by 17 percent and HC emissions by 13 percent relative to petroleum diesel. Emissions of these three pollutants routinely decreased, the exception being a vehicle equipped with a diesel particulate filter (DPF) that showed very low emissions of PM, CO, and HC and no significant change in emissions for blending of B20.[8]

The potential for tailpipe emission reductions and reductions in emissions toxicity by using biodiesel in all applications should not be ignored. Studies continue to show large reductions in hydrocarbon, particulate, and carbon monoxide emissions when biodiesel is used either as a neat fuel or as a blend with petroleum-derived fuels.[9]

While the National Biodiesel Board agrees with the result, we ask that EPA consider other studies that better illuminate the known benefits of biodiesel on tailpipe emissions and on other applications such as nonroad and the heating oil industry.

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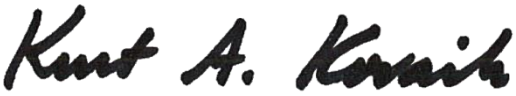
[2] United States. (2002). A comprehensive analysis of biodiesel impacts on exhaust emissions.
[3] Durbin, & Karavalakis, et al. (2014). Study of the Emissions Impacts of B5-B10 Blends for California.
[4] Miller, C. A. (2008). Characterizing Emissions from the Combustion of Biofuels.
[5] Id.
[6] Id.
[7] McCormick, Robert & Williams, A. & Ireland, John & Hayes, R. (2006). Effects of Biodiesel Blends on Vehicle Emissions: Fiscal Year 2006 Annual Operating Plan Milestone.
[8] Id.
[9] Lindhjem, C., & Pollack, A. (2003). Impact of Biodiesel Fuels on Air Quality and Human Health: Task 1 Report Incorporate Biodiesel Data into Vehicle Emissions Databases for Modeling.

Sincerely,



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