



April 30, 2018

Texas Commission on Environmental Quality
Air Quality Division
Implementation Grants Section, MC-204
12100 Park 34 Circle
Austin, TX 78753

Re: Public Comments regarding Texas State Mitigation Plan for the Volkswagen
Partial Consent Decree

To Whom It May Concern:

The purpose of this letter is provide Cummins' comments on Texas' Proposed State Mitigation Plan. We appreciate the opportunity to provide the Texas Commission on Environmental Quality (TCEQ) with our suggestions on the most cost-effective methods to reduce NOx emissions in the state through the \$209 million in funding provided by the Environmental Mitigation Trust.

Cummins Inc. is a global power leader that designs, manufacturers, sells and services diesel and natural gas engines, power generation systems and related products and technologies. We also recently announced that we will add fully-electric heavy duty powertrains to our portfolio of products in 2019. We serve our customers through our network of 600 company-owned and independent distributor facilities and more than 7,200 dealer locations in over 190 countries and territories. We have worked with our customers in Texas for decades who are served through our 9 sales and service locations throughout the state.

The quickest and most cost effective manner for Texas to administer the funds related to the VW settlement is to repower or replace the current fleet of heavy duty vehicles and equipment with the latest clean diesel and natural gas technology. With technology available today, more emissions reductions can be attained per dollar spent. The U.S. Department of Transportation and the U.S. Environmental Protection Agency found that 1 ton of NOx emissions may be eliminated by investing, on average, \$20,000 in clean diesel technology versus, on average, \$1 million in electric infrastructure.* In addition \$5 million spent towards natural gas powered vehicles, reduce 3,800 tons of smog forming emissions compared to 1,200 tons from an Electric Vehicle powered from the grid.** We can help the TCEQ achieve its goals of improving air quality by achieving significant and sustained cost effective reductions in NOx emissions while taking into account environmental justice considerations.

Cummins has years of experience working through the Diesel Emissions Reduction Act (DERA) program to repower or replace older diesel and natural gas vehicles and equipment to improve air quality throughout the nation. DERA has a proven track record for helping communities remove or replace older diesel engines and vehicles from local communities and replacing them with clean diesel and natural gas products with substantially lower emissions. Between 2008 and 2013 more than 73,000 older diesel vehicles and pieces of equipment were upgraded to the latest emissions standards under DERA. This resulted in the elimination of 335,000 tons of NOx. The program has been utilized around the country by public and private fleets to modernize their equipment and improve the air quality in the areas where they operate. DERA has enhanced the quality of life for millions of people around the country including hundreds of thousands of children who are travelling to and from school on buses with the latest emissions reduction technology. Cummins has been honored to partner with local clean air agencies, nonprofits and our business customers to improve all the communities where we work.



We want to help Texas get the most NOx reduction per dollar possible. This will allow the state to reduce the maximum number of existing older diesel and natural gas vehicles and equipment and have the greatest impact on air quality. The latest generation of clean diesel and natural gas engines with state of the art aftertreatment provide the most cost-effective solution to achieve the NOx reduction goals of the settlement. These technologies are available now and can repower existing vehicles or be incorporated into new vehicles. Our clean diesel and natural gas products are available in a wide range of heavy duty on-highway, off-highway, locomotive and marine applications that meet or exceed the most stringent emissions requirements established by the U.S. EPA. We will also have a variety of electric powertrains for applications where a fully-electric solution makes sense. We strive to provide our customers with the most choices to power their vehicles and equipment, while also helping to achieve Texas' air quality goals.

We urge Texas to keep the settlement money open to all technologies; not to favor one technology over another. This will give the state the greatest flexibility to meet the air quality needs of the diverse communities and heavy duty applications around the state. Maintaining technology neutrality will also allow Texas to analyze each application based on its merits and cost-effective use of the funds to reduce NOx emissions. It is paramount that your program focus on making changes to the products and fleets that can yield the greatest amount of NOx reduction per dollar spent. Such cost benefits analysis helps renew the public's confidence in environmental programs and helps to grow support for environmental protections generally.

Thank you for the opportunity to provide our comments regarding Texas' Proposed Mitigation Plan. We look forward to continuing to work the TCEQ and hope that you'll use our experts as a resource as you continue to assess various technologies and options. Please feel free to contact us if you have any questions or need any additional information about our products or experience working with Texas' partners on the DERA program.

Very respectfully,

A handwritten signature in black ink, appearing to read 'Tom Shepherd'.

Tom Shepherd

President

Cummins Sales and Service, Gulf Region

*Congestion Mitigation and Air Quality (CMAQ) Improvement Program Cost-Effectiveness Tables Development and Methodology (December 3, 2015)

**Game Changer Technical White Paper: Next Generation Heavy-Duty Natural Gas Engines Fueled by Renewable Natural Gas," May 2016; Gladstein, Neandross & Associate