Before the

Maryland General Assembly
House Economic Matters Committee
Regarding House Bill HB0562
Consumer Protection, Right to Repair
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Statement of

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My name is Allen Schaeffer. I'm a Maryland native, did my undergrad at University of Maryland College Park and Masters program at Johns Hopkins Bloomberg School of Public Health grad. I am also the executive director of the Diesel Technology Forum, a not-for profit educational organization headquartered in Frederick MD. We represent manufacturers of diesel engines and equipment, components, petroleum, and renewable biofuel producers. A list of our members follows.

I would like to ask that this testimony be accepted into the official record along with a supporting document from the US Environmental Protection Agency Dated November 23, 2020 a ten page Memorandum from EPA Assistant Administrator for Enforcement and Compliance Assurance Susan Bodine entitled "EPA Tampering Policy: The EPA Enforcement Policy on Vehicle and Engine Tampering and Aftermarket Defeat Devices under the Clean Air Act."

Over the last three decades, I have been an active participant in a full range of activities regarding diesel emissions in Maryland working with a number of entities noted below including.

- Working with Maryland Department of the Environment Clean School Bus Programs and Roadside diesel emissions inspection program,
- Maryland Port Authority and DERA funding,
- Participant in the Diesel Emissions Reduction dialogue lead by the Maryland Environmental Health Network.
- Testified in favor of since enacted legislation from then delegate now Senator Clarence Lam to establish higher fines and penalties for those found to be emitting excessive exhaust emissions from pick-up trucks – a practice known as rolling coal.

Given that past experience and commitment to reducing emissions, I am here today in **opposition to House Bill 0562** because if enacted, it will facilitate the tampering of emissions control systems on farm equipment, a

practice in violation of the federal Clean Air Act that will make Maryland's air dirtier, the Chesapeake Bay less healthy, not cleaner.

Diesel engines power nearly all farm tractors and machines thanks to its unique combination of efficiency, power, durability, and reliability. Over the last two decades, manufacturers of diesel engines and equipment have invested billions of dollars to reduce emissions to today's near zero levels and meet federal clean air requirements, as you can see in the attached chart. All of us are benefitting from these investments today in the form of cleaner air.

Achieving Near-zero emissions is accomplished by a highly integrated system of computers and controllers that control the combustion process and treats the exhaust emissions on a real time basis, using sophisticated systems like selective catalytic reduction (SCR) and diesel particulate filters. SCR systems are active "emissions scrubbers" on the vehicle – one where in a specialized catalyst, exhaust gases are treated by carefully calibrated sprays of Diesel Exhaust Fluid ("DEF"; aqueous urea) resulting in a chemical reaction that virtually eliminates nitrogen oxide emissions. Because it is an active system, DEF fluid must be refilled periodically based on fuel consumption, and that costs money. Today's DEF costs about $30-$40 dollars for a 2.5 gallon jug. Row crop Tractors can typically hold 4-6 gallons.

Unfortunately some creative individuals and repair shops have illegally access the engine computer and software and reprogramming to "trick" the engine into thinking that the SCR systems are dosing and operating properly, and diesel exhaust fluid levels are full, when in fact they are not operating at all or at very diminished levels, which is advertised as saving the operator the cost of refilling DEF fluid and avoiding expensive maintenance on particulate filters.

Sometimes called chipping, tuning or ECU remapping, this service is being offered to farmers by a variety of individuals and companies. If enacted, HB0524 will further facilitate this practice by providing open access to engine emissions control software, which is why we are opposed. Making changes to engine control units (ECU's) – computers and their controllers– to enhance the performance or evade emission controls has become a significant issue across North America. Being sold as "boosting performance" for pennies on the dollar compared to the cost of buying higher-capacity equipment" saving money through bypassing maintenance on emissions control systems; this practice must look like an attractive proposition, but it's not. It may void the equipment's warranty insurance agreements and is illegal in the U.S.

This practice will result in increased emissions of nitrogen oxides that will make Maryland's ozone non-attainment status worse and increase nitrogen deposition impacts in the Chesapeake Bay. Modifying or removing emissions control systems degrades air quality.

What this legislation would do, if enacted, would be to enable the defeat of these systems, denigrate emissions performance and make farm equipment dirtier not cleaner and increase emissions, not reduce them.

Manufacturers are subject to a wide range of federal requirements in building and warranting their products for emissions performance. Some of these are listed below.

- **Durability Regulations/Testing:** 40 CFR 1039.240, 1039.245; see also 1039.101(g) (useful life requirements); see 42 USC § 7525(a)(1) reference to testing to determine conformance to regulations prescribed under § 7521; § 7521(a)(1) requires regulations to prescribe a "useful life" over which vehicles/engines shall comply with emission standards.
- **Degradation Factor/In-Use Testing:** 40 CFR 1039.240, 1039.245, 1039.401; 42 USC § 7541(c)(6)

- **Tamper Resistant Emissions Systems**
  - 40 CFR Part 1039 -- Control of Emissions from New and In-Use Nonroad Compression-Ignition Engines for Part 1039 regs.
  - 42 U.S.C. 7522 (a)(3)
  - 42 U.S.C. 7522 (a)(4)
  - 42 U.S.C. § 7413(c)(2)(C). It is a crime to knowingly falsify, tamper with, render inaccurate, or fail to install any "monitoring device or method" required under the CAA. Per EPA, "Vehicle Onboard Diagnostics (OBD) are a "monitoring device or method" required by the CAA."

Under these regulations (as is mandated in HB 562), OEMs could be held liable for providing a "defeat device" to the market in the form of a service tool that allows end-users to circumvent certain engine/machine performance inhibitors related to emission controls.

This is especially true for SCR-equipped engines that rely on routine end-user action (e.g., filling the DEF tank) to ensure proper operation of the SCR system. If the end-user doesn't take that action, the regulations require engine manufacturers to inhibit operation of the engine; going into a limp mode and then shutting it down until repaired.

If OEMs provide customers the tool for overriding those inhibitors, that's considered circumventing the regulatory requirements. This may not be an obvious take-away after reading the referenced regulations and statutes. The California Air Resources Board (CARB) and USEPA, however, have gone through a lengthy process of interpreting those references and providing guidance to the industry that delivers this outcome.

Some of you might remember a few years ago the Volkswagen emissions cheating scandal. Investigations revealed the use of a defeat device – software code programming– that effectively turned off emissions controls during normal operation allowed the vehicle to get better performance and fuel economy and also increased emissions, the same software turned the emissions controls back on when it sensed a standard vehicle certification test was underway. This incident cost VW well over $30 Billion in fines and penalties.

This legislation goes in the same general direction-facilitating tampering with emissions controls, saying it is okay for anyone to mess around with the computer controls and software on that tractor to save a dollar or two or a little time. That is not what we want.

For all these reasons and others, so-called Right to repair legislation takes us the wrong way for clean air and the wrong way on safety.

We urge your vote in opposition to HB0524.

Thank you for the opportunity to appear today.

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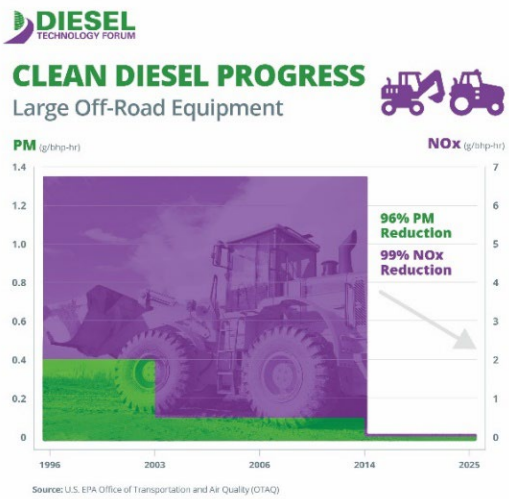

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