



Before the

Maryland General Assembly

House Economic Matters Committee

Regarding House Bill 0084 (HB0084)

Consumer Protection, Right to Repair

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Statement of

Allen Schaeffer, Executive Director

Diesel Technology Forum

5291 Corporate Drive Suite 102

Frederick MD 21703

My name is Allen Schaeffer and I am the executive director of the Diesel Technology Forum, a not-for profit educational organization headquartered in Frederick MD, established in 2000. We are proud to represent manufacturers of diesel engines and equipment, components, petroleum and renewable biofuel producers. A list of our members is attached.

Over the last two decades, the Diesel Technology Forum has been an active participant and consistent supporter of efforts to reduce in-use diesel emissions in Maryland. This includes working with the Maryland Department of the Environment, Maryland Port Authority, the Ozone Transport Commission and EPA Regional and EPA HQ efforts, and a Diesel Emissions Reduction dialogue lead by the Maryland Environmental Health Network.

Two years ago, we were here in Annapolis in support 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 truck – a practice known as rolling coal.

I am here today in opposition to House Bill 0084 because if enacted, it has the potential to

- make Maryland's air dirtier, not cleaner,
- jeopardize heavy-equipment safety for both farmers, service technicians and the general public that share roads, and
- facilitate a practice in violation of the federal Clean Air Act.

Diesel engines and fuel 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 and meet federal clean air requirements. As a result, today new diesel models of everything from highway tractor trailers to construction machines, work boats and farm tractors now emit near zero emissions for both nitrogen oxides and particulate matter, as you can see in the attached chart.

Near-zero emissions in new diesel engines are accomplished thanks to a highly integrated system tuned to maximize customer performance of the machine while still ensuring compliance with safety and EPA emissions standards.

Making changes to engine control units (ECU's) – computers – to enhance the performance. or modifying farm equipment software to boost performance or evade emission controls has become a significant issue across North America. Sometimes called chipping, tuning or ECU remapping, this service is being offered to farmers by a variety of individuals and companies. 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 along with insurance agreements and is illegal in the U.S.

Today's new diesel technology found in farm and construction equipment typically includes exhaust treatment systems and advanced engine emissions controls, exhaust gas recirculation (EGR), diesel particulate filters and selective catalytic reduction (“SCR” systems). In the case of an SCR system, think of these as 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.

These systems have been the target of engine reprogramming by accessing 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. If enacted, HB0084 will further facilitate this practice by providing open access to engine emissions control software, which is why we are opposed.

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. Anecdotally, the State of New Jersey, in its recent evaluation of tampering with emissions control systems on commercial on-highway vehicles found that emissions from those that had been tampered with were as much as 40 times the allowable EPA levels.

Beyond these emissions concerns are those of safety, both for the operator and general public. Modifying engine computers to boosting performance can result in higher operating and exhaust temperatures, overheating, accelerated wear and stress on high-speed parts, like power take off's and hydraulic and belt-driven systems. There are a number of documented cases of personal injury from tractors and machines where unauthorized engine programming modifications were made.

Summary

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 HB0084. Thank you for the opportunity to appear today.

Allen Schaeffer
Executive Director
Diesel Technology Forum, 5291 Corporate Drive Suite 102
Frederick MD 21703 ph. 301-668-7230
aschaeffer@dieselforum.org
www.dieselforum.org



Members of the Diesel Technology Forum

