

2 September 2020

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The Honourable Louis Amato MLC
Chair – Joint Standing Committee on Road Safety
Parliament House
Macquarie Street
Sydney NSW 2000

By email: staysafe@parliament.nsw.gov.au

Dear Mr Amato

Inquiry into reducing trauma on local roads in NSW

I refer to two questions taken on notice by the National Heavy Vehicle Regulator (NHVR) during its appearance before the Joint Standing Committee on Road Safety on Friday 7 August 2020.

I have now made further enquiries and can provide the following advice to the Committee.

Regulation of vehicle control systems

As vehicle design has developed, so have their control systems. Traditionally, the primary control unit of a vehicle was the engine management system, with other components in the vehicle being mechanical systems that did not require a control unit. However, as more technology has been incorporated, there are now multiple control modules that are needed for components such as the transmission, brakes, and suspension, in addition to the engine. Collectively, all of these control modules govern the performance of the vehicle and are referred to as the Electronic Control Unit (ECU).

There is no overarching regulation or rule under current regulation that directly sets standards for any control module or ECU. Rather, as the programming contained in an ECU controls the function or performance of one or more components, the programming ensures that the vehicle or component(s) complies with the requirements of an Australian Design Rule (ADR) or other regulation.

For example, a stability system on a heavy vehicle (commonly referred to as Electronic Stability Control or ESC) is a complex system that assists the driver by identifying when the vehicle may not be travelling in the direction intended by the driver. This may occur under heavy braking and the system intervenes in a number of ways, such as reducing engine power and braking, or not braking, individual wheels to correct the path of the vehicle. This system, which will be soon be mandatory in new heavy motor vehicles (phased implementation over the period 1 November 2020 to 1 January 2022), is controlled by the ECU, so the programming of the ECU is central to a vehicle's compliance with the ADRs.

Some operators may seek to tamper or alter the ECU in order to gain a commercial advantage. Traditionally this has been by altering the road speed limiter functions, allowing the vehicle to travel faster than 100km per hour or alter how the engine systems operate to achieve greater power, which can increase a vehicle's emissions.

Tampering or altering of a heavy vehicle's ECU is an offence under a number of provisions of the *Heavy Vehicle National Law*, ranging from tampering offences through to vehicle standards non-compliances (defective vehicles) or non-approved modifications. The NHVR, along with its enforcement partners, continues to work to identify ECU tampering through on-road intercepts and targeted investigations and will take the necessary action to prevent the practice.

Inspection of vehicles in New South Wales

As advised at the hearing, NSW is yet to transition its regulatory services to the NHVR. I am advised by Transport for New South Wales that their Compliance Operations Inspectors conducted 103,388 inspections under the Heavy Vehicle Inspection Scheme in 2019. This represents 52.1% of registered heavy vehicles in NSW.

The remaining NSW registered heavy vehicles either undertake an inspection via industry-based Transport for NSW authorised examiners under the Heavy Vehicle Authorised Inspection Scheme, or are enrolled in the maintenance module of the National Heavy Vehicle Accreditation Scheme, which is administered by the NHVR.

I trust this information is of assistance to the committee. Should the committee require any further information, please contact my Director Emma Higginson on [REDACTED] or [REDACTED]

Yours sincerely

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Sal Petrocitto
Chief Executive Officer